CLARKSTON CONSULTING

INSIGHTS

Supply Chain Excellence in the Life Sciences Industry

What Can These Companies Learn from Consumer Products?

"Life" for the life sciences company executive these days can be tough. Gone are the days of solid block-buster drug pipelines and the knowledge that your profitability didn't necessarily depend on how efficiently and cheaply you could produce your product. Mergers and acquisitions, the political environment, and evolving product pipelines have created a new playing field for pharmaceutical, biotech, and medical device companies—a field where only the strong—and efficient—will survive, a field where the traditional sources of profit and competitive advantage only get you into the game, not on the leader board. To get on that leader board, LS companies need to look to the next frontier—one already conquered and civilized by another closely related industry. That frontier is supply chain excellence, and the conqueror is consumer products.

Historically, it was innovation that held the key to competitive advantage for life sciences companies—innovation and the patent. The life sciences supply chain primarily focused on quality, compliance and meeting customer orders, not efficiency. Today, those priorities are changing and life science supply chain professionals now find themselves feeling across-the-board pressures on margins and working capital driven by:

- Imminent patent cliffs of blockbuster drugs
- Government and insurance price concessions
- Excess capacity AND increased cost-of-capital
- Weak pipelines AND increased Generic pressures
- Increased pressures for quick profits from big-pharma mergers/acquisitions
- Increasingly complex product portfolios
- Focus on emerging markets, where infrastructure may not yet be established

And so increasingly life sciences executives are turning their attention to the supply chain, expecting it to:

1. Deliver sustained profitability in spite of increasing complexity, foreign competition and government price constraints;
2. Balance demand with supply - make significant reductions in working capital without impacting service, quality or regulatory compliance;
3. Improve the ability to manage extended supply chains with longer lead times, higher reliability and with tighter controls;
4. Continuously and quickly adapt to all of the above.

Luckily, LS executives know that consumer products companies have faced (and solved) many of the same challenges. There is no reason to reinvent the wheel—simply learn from the extensive expertise of their consumer products (CP) counterparts. While it may seem strange to compare pharmaceuticals with laundry detergent, or medical devices with consumer electronics, it can be argued that the industry factors noted above are driving life science companies towards a more commoditized model—just like consumer goods.

So what can those LS supply chain executives learn from their CP counterparts?

Challenge #1:
Deliver sustained profitability despite increasing complexity, foreign competition, and government price constraints

Consumer products response

Faced with extreme pressures on their already thin margins, consumer products companies have responded with comprehensive, cost cutting measures, including:

- Outsourcing or divesting of every component of the supply chain that was not an inherent part of the company's unique value-proposition.
- Deploying constraint-based software models to plan and schedule the extended supply chains and factories, resulting in higher utilization and an improved understanding of where supply chain bottlenecks were affecting service and working capital.
- Challenging the notion of measuring costs in isolation from other balanced measures (i.e., those which balance costs against service and inventory), and developing comprehensive cost models to understand total delivered costs.

Figure: **LS executives are increasingly focusing on their supply chain capabilities to meet business challenges.**

What can life sciences companies do?

- **Supply and strategy** - Understand your corporate strategy and how your supply chain should be configured to align with that strategy. Organizing product groups, market channels, and distribution networks in a way that drives maximum value requires an analysis of total landed costs, including the likely impact on in-house capacity utilization as a result of any potential outsourcing activities.
- **Efficient sizing** - Where possible, smaller lot sizes enable improved supply chain efficiency and responsiveness. Although manufacturing lot sizes cannot be easily changed for drug-producing companies, opportunities still exist in purchasing, post-production WIP versus finished goods, and the size/location of distribution centers. Once optimized internally, the next logical step is to apply the same principles across the extended supply chain – resulting in the "efficient" size for all trading partners.
- **Intelligent speed** - Although supply chain constraints vary from raw materials to quality inspection and control, lean solutions can still be applied without compromising quality or compliance. Consumer products companies have learned that these solutions only yield optimal value when applied at the supply chain constraint. Increased speed may translate to better asset utilization but if the improvement does not effectively source demand, or reduce the total cost-to-serve, then your total system is not optimized.

Life sciences efforts so far

While an approach to identifying improvements across the extended supply chain is a fairly new concept within life sciences, several companies are already analyzing the constraints and complexities within their supply chain operations. GlaxoSmithKline has shown a commitment to building out supply chain centers of excellence, while Roche has been recognized for investing in supply chain optimization technologies.

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Challenge #2:
Balance demand with supply without negatively impacting service, quality or regulatory compliance

Consumer products response

Balancing demand with supply has fundamentally shifted how consumer products companies define their value chains, their planning processes, and ultimately how they determine their total cost-to-serve. This has been a key investment area for consumer products companies and consequently many of their approaches are considered 'best-of-breed'. These include:

- "Demand pull" networks—a focus on customer demand drives optimal levels of supply
- Fully integrated sales and operations planning (S&OP) process
- Demand signal repositories (DSRs) and mid-period adjustments to the S&OP plan enabling faster adjustments to production plans, demand forecast, and inventory targets
- Demand control concepts—shaping buying behaviors through the optimization of promotions

What can life sciences companies do?

Sense and respond - The challenges LS companies face capturing changes in demand and making adjustments in supply are complicated by the unique channels and players involved in getting pharmaceutical and biotech products to market. These include:

- Which demand signal should you listen for and what should you do when that signal shows a change in expected demand?
- When you sense a change from the distributor, the pharmacist, the physician, the payer organization, or patient, how old is that signal by the time it reaches you? Even if you get a timely signal that represents a change in real demand, how can you respond when your replenishment lead times are measured in months?

Even in the absence of a complete data picture, "listening posts"—data from a few carefully selected, diversified outlets —can provide a representative picture of what is happening with demand. Integrating these signals into a structured S&OP process allows the company to make adjustments in supply, subject to observed changes in demand.

Life sciences efforts so far

Until one complete source of consumer consumption data becomes available, life sciences companies can knit together information from several sources, including prescription data, distributor sales, or pharmaceutical point of sale. CVS' Caremark is leading the way in providing point of sale (POS) pharmacy data to pharmaceutical manufacturers while Medtronic is working with its customers to gain visibility into inventory levels and future demand.

Challenge #3:
Improved ability to manage extended supply chains—from point of manufacture to point of sale

Consumer products response

Like many industries with high labor inputs, market pressures have forced consumer products companies to identify cost reduction opportunities, typically resulting in sending high-priced jobs to low-cost, overseas markets. While this solution may have succeeded in reducing the total cost-to-serve from an operational cost standpoint, below the surface are hidden costs that may negate some of the gains from outsourcing, including: extended lead times (more inventory and higher risk of forecast error); potential loss of quality control; counterfeiting; and the risk of catastrophic quality events. While CP companies have yet to mitigate the downside quality and counterfeiting risks associated with outsourcing, these issues are of particular concern in light of regulations, and for life sciences companies entering emerging markets.

What can life sciences companies do?

- **Visibility** - Starting at the source of raw materials, visibility is a critical first step. Three dimensions are important and must be built into the process: (1) cadence (lot size and frequency) of production; (2) product quality controls; and (3) controls and incentives to prevent counterfeiting. Visibility is the first component to ensure quality at the source with contract manufacturing organizations (CMOs) while still meeting FDA requirements.
- **Strategic sourcing and supplier collaboration** - If you aren't proactively finding ways to strengthen existing relationships, while routinely looking for alternate sourcing options,

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then chances are you are finding it increasingly difficult to compete. Every participant in the value chain has to continually improve. Supply chain executives have renewed their focus on finding the best suppliers in the world and then building lasting relationships to keep competitors at bay.

Life sciences efforts so far

Collaboration is nothing new within life sciences. Several firms are taking this concept further and integrating their extended supply chains. Novartis and Abbott are recognized leaders in capturing customer insights and integrating them with suppliers. Both AstraZeneca and Merck rely on CMOs and have made substantial efforts at collaboration to ensure quality and consistency.

Challenge #4:
Ability to continuously and quickly adapt to all of the above

Like the first three challenges, this one is not necessarily industry-specific; it's simply a matter of how quickly the changes are occurring and the magnitude of the change in a given amount of time. In consumer products, the principles that drive today's leaders are speed and agility. The quest to achieve both, while still keeping everything else in the supply chain operating at lowest sustainable costs with no impact to service, is what keeps today's supply chain executives up at night.

Achieving that goal involves company-specific programs that uniquely incorporate the principles discussed above. Improvement efforts must be supported by analytical models that highlight the impacts of change on the supply chain (network design, inventory optimization, total landed cost models), since the optimal answer will vary based on industry segment, company, and product line. Finally, let's not forget that "best practice" supply chain continues to evolve, and that execution is ultimately dependent on a highly-skilled talent pool of supply chain professionals who routinely assess and adjust all dimensions of the extended supply chain.

Food for thought:

If the journey to supply chain excellence has taught us anything, it is that integration is more important than local optimization and that investments in the "magic bullet of the day" are never any better than the weakest link in the process. Whether it be people/organization, process, or technology, the answers continue to evolve.

So we know that change is needed, but how? One thought that comes to mind is something Richard Pascale mentions in *Managing on the Edge*: "Sometimes, it is easier to act yourself into a new way of thinking, rather than to think yourself into a new way of acting."

Stated another way, sometimes it is better to take small steps in a strategic direction, learning as you go, rather than analyzing the problem until the perfect solution is discovered. Life sciences companies have a clear opportunity to leverage the lessons learned from their peers in consumer products, while taking into account the nuances specific to their industry—but only if they choose to act. Clarkston Consulting has a long history of helping supply chains in BOTH industries, making us uniquely qualified to help life sciences supply chain professionals learn from their consumer products counterparts.

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About Clarkston Consulting

Clarkston Consulting is a different kind of management and technology consulting firm. We deliver a unique experience for market leaders within the Consumer Products and Life Sciences industries. Considering professionalism, expertise, and value as prerequisites, we take service a step further through our unyielding commitment to the success of people as individuals, both our clients and our employees. By combining integrity, adaptability, and a whatever-it-takes attitude, we have achieved an extremely high rate of referral and repeat business and a 9-year average client satisfaction rating of 97%.

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