Value Chain Transformation for Life Sciences:
Enabling Speed, Efficiency and Product Certainty in a Volatile Market

High performance. Delivered.
The extent and pace of industry changes facing life sciences companies demand a much different operational response. Today, focus and speed-to-value are the mantras. The products that life sciences companies bring to market have to be the right ones (safe, secure and compliant) for the right customer segment; reach the market efficiently (in the leanest, most cost-appropriate manner) and return value quickly (in terms of time to value and generating the promised outcome).

However, being right, fast and efficient can only be achieved through a seamless integration of the R&D, supply chain and commercial functions. In this paper, Accenture will show how achieving that integration will require transforming life sciences' traditional supply chains into dynamic and segmented end-to-end value chains that fully align with and enable the company’s business strategy and act as engines of financial growth.
Out with the old, in with the new

Clearly, life sciences traditional supply chain approaches have become an unaffordable luxury against the backdrop of today’s operating realities: Product lifecycles are decreasing, truncating both launch times and time to peak sales. Peak sales themselves are smaller; by 2015, generics are expected to account for 39 percent of market spending, up from 20 percent in 2005.¹ As individual product revenues shrink, heightened regulatory pressures and increasingly stringent compliance specifications have put new pressure on resources.

Additionally, the customer is changing: At a macro level, life sciences companies must learn to operate in an environment where the majority of revenue will come from unfamiliar emerging global markets, with their own sets of regulations, patient needs and cultural preferences and expectations. At a micro level, well-informed individuals, integrated provider networks, and the government and other payers have started to wield much more substantial power in treatment therapies and the prices the market will pay, causing a shake-up at the very core of life sciences product-to-market models.

Supply chains that pushed products into markets without aligning to customer needs; disconnected operations across business functions; and a one-size fits all approach across markets with varying needs—these relics of a different age will have to go. Today, how life sciences companies manage industry changes across every aspect of their operations will be a key differentiator for achieving future high performance. It’s time for life sciences companies to take everything they know about supply chains and turn it on its head. It’s time for value chain transformation.

¹. IMS Institute for Healthcare Informatics. The Impact of Patent Expiries on Global Spending on Medicines.
What is value chain transformation?

Value chain transformation is the process of moving from traditional inside-out based operations to a model where the key business outcomes desired define how every point of the chain—from the customer’s customer to the supplier’s supplier—is set up.

In value chain transformation, the voice of the customer is the main driver behind the business strategy and the appropriate response. The company starts from the point of getting the customer’s requirements embedded into the value chain design. This outside-in, value-driven premise is opposite the traditional supply chain approach that pervades in life sciences, where most companies develop a supply chain to push out to their customers, rather than being led by their needs and designing a response to them.

From there, true value chain transformation is marked by integration—and getting the most out of the strengths of every participant at every point in the supply chain. The objective is to achieve a perfect match between the organization’s end-to-end supply chain capabilities and the customer’s requirements, in a cost-appropriate manner. Aligning in this way will turn the value chain into a financial engine for the business: whereas traditional supply chains have been structured as cost centers (only costs money and does not add value), a value chain adds value by executing to the business strategy and turns from a cost center into a profit driver.

How do life sciences companies achieve value chain transformation?

Based on our experience helping many clients across many industries achieve value chain transformation, Accenture has distilled the process of successful transformation into four broad steps:

**Step 1. Understand the imperatives for the company’s value chain, based on its business strategy and its customers’ needs.**

A life sciences company needs to determine its “competitive essence,” taking into account industry trends and, critically, the voice of the customer, when determining its strategic imperatives. A life sciences company will typically differentiate on one or two of three strategic imperatives: cost, service or innovation (see Figure 1). It is not possible to excel in all three. Then, the company creates different segmentation models for each of its primary customer segments and the customer needs in each segment shape the supply chain response.
Step 2. Diagnose the supply chain’s current performance.

Once the company has established its strategic goals and points of competitive differentiation, it must understand its maturity in terms of supply chain capability, so that the company can begin to target gaps and areas for performance improvement.

Accenture has identified four stages of supply chain maturity as life sciences companies move toward value chain transformation (see Figure 2):

- **Functionally focused supply chains**, in which decisions are made in isolation for process-based or regional objectives, and in which skills, capabilities and lessons learned are not shared or replicated across the company. Functionally focused supply chains tend to have a reactive approach to problem solving, with a short-term view and minimal consideration for overall business outcomes.

- **Efficiency and cost focused supply chains**, in which projects are implemented to solve siloed process and/or functional problems to reduce costs in a specific area, rather than to address overall supply chain objectives. Efficiency and cost driven supply chains are inside out focused, with different regions often working on similar projects and not addressing global needs. A typical portfolio of initiatives for a company in this stage will include ERP rationalization, strategic sourcing cost reduction efforts, improving forecast accuracy, nascent stages of sales and operations planning, moving from measuring LIFR (life item fill rate) to OTIF (on-time in full) and IT platform consolidation.

- **Demand-driven supply chains**, in which core supply chain functions collaborate on key strategic issues and common objectives. Companies with demand-driven supply chains drive collaboration with suppliers and customers, share information and ideas to solve problems, and leverage downstream data to make trade-off decisions.

- **Value-driven supply chains**, in which supply chains are segmented to address specific market needs and drive greater levels of economic value. Different segments may have different trade-offs, but in all cases, greater visibility comes to every point of the value chain. This visibility gives a company more insight earlier on, allowing the company to manage its entire value chains more proactively and orchestrate outcomes.

Value-driven supply chains are also marked by system-wide, integrated improvement approaches: the organization develops a disciplined management system that integrates processes, technology and people and operates with a common set of principles.
We note that it is difficult to pin a company neatly into one stage of maturity. The organization may straddle maturity levels—with some elements more mature than others. However, most companies can see themselves reflected primarily within one of the stages, and very few will be at the value-driven maturity level. In Accenture's experience, the majority of life sciences companies sit in early Stage 2 (the efficiency and cost focused level) of supply chain maturity.
Step 3. Identify the capabilities needed to fill the gaps.

After diagnosis, the life sciences company should begin identifying all the capabilities it needs to fill the gaps between its current and desired maturity state. Note the emphasis on all; a life sciences company could optimize a certain function, but from an end-to-end perspective, it would always reach a suboptimal outcome because it would not be approaching the supply chain design with an end-to-end view.

Accenture has identified eight core capabilities that life sciences companies must have to progress through the stages of supply chain maturity, ensuring the right products are delivered, efficiently and fast. Accenture recommends conducting a maturity analysis against these eight critical capabilities, and then designing a value chain that prioritizes filling the gaps:

1. Market/customer supply chain alignment: The voice of the customer influences how the company segments its supply chains and company goals determine how it prioritizes them. Additionally strong alignment is needed with the commercial organization to drive strategies such as segmentation and complexity reduction.

2. Embedded best-in-class global quality and compliance capabilities. Changing regulations, increased enforcement, the costs of product design and manufacturing failures, and the complexity of global supply chains has exponentially increased the pressure to “be right” at every point of the supply chain. Quality and compliance are not easy, and they are systemic – and they are as strong as your weakest link. Therefore, life sciences leaders have not only centralized their quality systems, processes, organization and IT applications, but have also moved from using global data reactively to developing predictive knowledge capabilities that feed back into all stages of planning in the product lifecycle.

3. End-to-end planning: From end-to-end, the company’s supply chains are designed to drive toward customer-focused, customer-driven outcomes. For example, when JCPenney implemented a new merchandising strategy, its leadership concluded it also was time to change how merchandise was being distributed from vendors to stores. The company developed a logistics network optimization model based on current and future customer service requirements. This model identified the ideal location and size for each of the network’s distribution facilities, from both a cost and service perspective. As a result, JCPenney reduced its cycle times from an average of eight days to less than two and cut its facility costs cut in half (per unit shipped).

4. Agile supply chain: Agility entails having a product-line setup that can quickly be adjusted (i.e., follow “assemble to order” instructions) to respond to market changes. For example, a life sciences company needs to have its agreements with “spare” suppliers in place. Robust analytics is a key enabler, allowing the company to understand and respond quickly to market fluctuations.

5. Ability to achieve speed to value: Life sciences companies need the ability not just to get a product to market fast, but in ways that generate revenue quickly. Achieving speed to value is about getting to the outcome—the product generating strong revenue—rather than just having the product out there available for sale.

6. Integrated lean operations: A lean and resilient supply chain network, optimized globally, will position the company to meet the customer service needs across all markets. For example, Mondi, a leading paper manufacturer and distributor, focused on its pan-European supply chain with a view to driving efficiencies across all aspects of the network. Strategic review of the company’s existing network of 6 manufacturing facilities and 28 distribution centers found ways to aggregate small deliveries for savings and gave the company tighter control over ordering behavior.

7. Collaborative trading partner networks: Strong downstream trading partner relationships drive a collaborative value chain network. This is an essential element in making supply chain objectives viable.

Some good examples are direct-to-patient initiatives in the United Kingdom, East Africa, Australia and India. For example, in 2011, AstraZeneca established a direct-to-patient sales channel for an off-patent cancer drug by partnering with the mail-order pharmacy of a major pharmacy benefit manager. Unlike a traditional pharmaceutical supply chain, there is no wholesaler and AstraZeneca does not sell the product to the intermediary pharmacy; instead, the company sells the product directly to the patient. This partnership allows AstraZeneca to sell the brand drug at a price that may provide significant cost savings to patients beyond the retail pharmacy prices. As a result, AstraZeneca can provide an effective option to patients who valued the branded drug and are willing to pay an affordable premium over the cost of the generic.

In collaborative trading partner networks, life sciences leaders will encourage bidirectional feedback and provide it as well, so that all parties are well informed with aligned objectives to attain their goals. For example, in the DTP example above, AstraZeneca collects and analyzes measures such as the channel’s profitability, speed to delivery, and impact on overall market share to gauge the program’s success.
8. Rigorous management of the supply market: Category leaders must always bring the latest supplier market intelligence to the table in order to properly develop, maintain and execute world-class category and supplier strategies. Customer needs and over-arching business strategies are enabled by driving category strategies that effectively address each specific spend category’s requirements, which are then optimally met across all product value chains by bringing the most willing and capable suppliers forward as partners. Those preferred suppliers with high strategic value to the company are rigorously managed using a formal Supplier Relationship Management (SRM) business process. In the SRM process, each preferred suppliers’ value chain is cost optimized to drive cost reductions while also minimizing risk and identifying revenue-generating innovation opportunities.

**Step 4. Implement the design and performance management metrics.**

With the objectives understood, the strategy defined and the gaps identified, the company mobilizes resources to implement the design and develops the governance model and rules for operation. The work does not end once the initial implementation is complete. An organization needs end-to-end performance management to enable a value chain is sustainable and that it has the ability to keep improving over time. Accenture frequently sees our clients grapple with the challenge of different functions of the value chain having contradictory metrics and incentives. Developing metrics that are aligned with supply chain outcomes—across all the areas of the supply chain as well as cross-functional—allows the company to consistently drive excellence.

**Figure 3. Maturity in the eight core capabilities improves all aspects of the organization.**

<table>
<thead>
<tr>
<th>Area</th>
<th>From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning</td>
<td>Plant level planning and optimization</td>
<td>End-to-end supply chain strategy and network level planning and optimization</td>
</tr>
<tr>
<td>External partnership</td>
<td>External suppliers with variable performance</td>
<td>Traditional and nontraditional external partners integrated in the supply chain with repeatable and visible performance</td>
</tr>
<tr>
<td>Supply chain management</td>
<td>Reactive supply chain management due to limited visibility of supply chain performance and inventory across the network</td>
<td>Visibility of supply chain performance and inventory enabling proactive supply chain optimization and risk management</td>
</tr>
<tr>
<td>Supply chain strategies</td>
<td>One-size-fits-all supply chain and inventory strategies</td>
<td>Segmented supply chain strategies to address specific customer and market needs while balancing cost, service and agility tradeoffs</td>
</tr>
<tr>
<td>Product launch</td>
<td>Inconsistent product launch process relying on individual efforts</td>
<td>Clear and consistent process with supply chains and commercial collaboration to define launch plans and tradeoff decisions</td>
</tr>
<tr>
<td>Risk Management</td>
<td>Emerging API business continuity strategy</td>
<td>End-to-end risk management strategy that accounts for internal and external compliance risks, business continuity, supply risks, sustainability, cost/price flexibility and corporate reputation</td>
</tr>
<tr>
<td>Financials</td>
<td>Operational variability, leading to variable financial results</td>
<td>Supply chain excellence, leading to consistent and predictable financial results</td>
</tr>
<tr>
<td>Sourcing and Procurement</td>
<td>A service function in charge of price negotiations and ordering</td>
<td>An integrated strategic business partner driving innovation, total cost control and growth</td>
</tr>
</tbody>
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Source: Accenture.
Guiding principles of value chain transformation.

The practical, tactical steps to value chain transformation sit on top of a few fundamental principles that must always form the backdrop to the transformation effort:

Developing a value chain moves beyond becoming demand-driven. In other words, value does not translate into the customer automatically getting everything it wants. There needs to be a value proposition on both sides—the customer and the business. (And depending on your business imperatives, a value proposition for your partners. For example, a company with a competitive essence toward service needs its partners to be happy if it expects high performance from its partners.) You start by looking at your business through the lens of your customers, but then you take an even broader-horizon view (and make necessary, well-informed trade-offs) to provide the most value to all stakeholders.

One size does not fit all. No one value chain solution will accommodate the complete breadth of a company’s products, markets and customers; rather, a portfolio of value chains is needed.

From a segmentation perspective, life sciences companies need to choose the strategic imperative they want to follow: either cost, service or innovation (it’s not possible to excel at all). They will then create different segmentation models for each of their primary customer segments, backed by a portfolio of supply chains suited to delivering outcomes to those specific segments. That said, segmentation is not a panacea. There is certain inherent complexity that may not be driven out in Life Sciences supply chains. Leaders will accept that not all complexity can be reduced or eliminated and the best supply chains must be designed to manage this complexity in the most cost appropriate manner possible. A good example to learn from is Intel and its design of its highly responsive and reliable supply chain via its “Just Say Yes” initiative.

Value transformation requires “all hands on deck.” While leadership and governance guides the transformation, executing and sustaining value transformation requires concerted effort as a whole. Therefore, change management throughout the organization must be approached as a competency, rather than a project. Life sciences leaders first must develop a clear business case and verify that people always understand what is required of them to contribute to a successful value chain.

Moreover, life sciences leaders must identify the skills and talent required at every stage of value chain transformation (which may change from planning to implementation to sustainability). This starts with the leadership itself. One consumer electronic company had to swap out a number of its key executive leaders during its transformation in order to achieve the desired outcome. This corporate introspection around having the right talent to fuel and sustain the transformation is not an easy task, but it separates the great from the good.

Value transformation is not a once and done effort. What constitutes value changes over time, so life sciences companies must constantly monitor industry trends, voice of the customer and their own performance, not only to support alignment of the value chain, but also relevance. Moreover, life sciences companies operating across diverse markets must take into account that critical value chain challenges may differ from segment to segment. It behooves life sciences companies to work so that the value chains they build do not collapse shortly after implementation, but rather are sustainable over time, despite the external conditions. Building sustainability implies robust, cross-functional continuous improvement capabilities.

The benefits

Although the benefits will vary from client to client, depending on initial maturity, typical benefits that Accenture has seen as a result of value chain transformation initiatives include:

- The value chain acts as a financial engine to drive profitable growth and increase market share.
- The company reduces inventory while improving customer service performance at same time.
- By building better capabilities aligned with what the customer needs, the company typically reduces the number of unused, wasted products it must scrap at the end.
- Better collaboration with suppliers (sharing campaign planning, for example, or point of sales data) also allows suppliers to lower their inventories and deliver better performance, which in the end drives down sourcing costs.
- Innovations created by partnering with suppliers could be simple process improvements that reduce costs, or they could be game changing product-related innovations, such as a new drug-delivery device. Such innovations could add to the revenue stream of a product already on the market or even create a new market altogether.
- When a company understands better what to produce and when, it improves capital efficiency. The company begins to think about increasing the utilization of its manufacturing base and securing the right volumes for the relevant items.
- From an organizational perspective, organizations with aligned value chains experience less “fire fighting.” Employees are clear about what they need to do, and with a standardized measurement framework in place, life becomes much easier.
- From a qualitative perspective, the organization aligns to a business strategy that is oriented toward driving sustainable value across the value chain.

Conclusion

In light of a changing industry and changing customer requirements, every facet of a life science’s company’s operations must work optimally toward achieving business objectives; there’s no room for waste. To achieve speed to value, life sciences companies must shift their focus from products to customers and move beyond their traditional “one-size-fits-all” approach to supply chains. The leaders will seek to understand the desired outcomes for the customers and for the business and then design the end-to-end value chain according to those objectives. They will execute the value chain as one integrated whole, including collaboration and integration with customers, consumers, suppliers and partners.

Value chain transformation contrasts sharply with the old ways of approaching the supply chain as isolated segments, optimizing functions for internal business needs, and at times to the detriment of the whole. But the genuinely transformative results that result from changing approach make the efforts genuinely worthwhile: a cost-appropriate, compliant, secure and efficient global value chain.
About the authors

Hussain Mooraj is the global lead for the Accenture Life Sciences Supply Chain practice and brings more than 20 years of experience in manufacturing, supply chain, technology, sales and marketing, strategy and consulting to his role. He works closely with senior executives from global companies across the healthcare value chain (manufacturers, wholesalers, pharmacies, payers, and providers), advising them on business strategy and technology best practices. In 2009 he was voted by PharmaVOICE as one of the 100 most influential and inspiring individuals in Life Sciences. Mr. Mooraj can be reached at hussain.mooraj@accenture.com

Dr. Stijn-Pieter van Houten is part of Accenture’s Global Integrated Planning and Fulfillment group. He has served a diverse set of global clients with supply chain strategy and assessments, value chain transformations, and supply chain segmentation. Dr. van Houten is based in Amsterdam, and can be reached at s.van.houten@accenture.com.

Acknowledgments

The authors wish to thank the following people for their valuable contributions to this paper:

Jen Seeley
Vishal Singal
Philipp Polterauer
Bill Kammerer
Stephen Laaper
Jolyon Austin
John Morgan
Tom Papa
Bruno Pfeifer
Jyotin Mehta
Alex Cardona
Olivier Bonneau
Rahul Thakur
Stephanie David
Nikki Willett
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