How to plan for supply chain success in the healthcare industry

J. Paul Dittmann, Ph.D.
Executive Director, Global Supply Chain Institute at the University of Tennessee
Perhaps this white paper caught your eye because your healthcare supply chain strategy is not generating the results you expect. Or perhaps your supply chain fails to deliver products on time consistently or is flat-out too costly. Whatever the reason, research suggests about two-thirds of healthcare logistics executives know their supply chain strategies are not equal to the dynamic demands of the healthcare industry.

In fact, only 36 percent of supply chain executives say they have adequate supply chain plans, strategies, and contingency plans, according to the seventh annual UPS *Pain in the Chain* healthcare logistics survey. Across the industry, there is much work to be done—and immense benefit to be gained from it.

What’s in a strategy, anyway?

Supply chain consultants often work with companies—especially in the healthcare field—that lack a true supply chain strategy, and instead expend energy unproductively in pursuit of the latest hot trend or flavor of the month. In January the goal might be cost savings, and, by May, focus might have turned to improved customer service. Like a ship without a rudder, any wind is favorable.

People in such companies invariably complain that there are too many initiatives. As one healthcare supply chain executive said, “All we do is launch and then leave initiatives. We rarely focus on the critical few and complete them. We have no effective strategy.”

So let’s be clear from the outset: A supply chain strategy is a *multiyear roadmap that generates a set of actions that will create the supply chain capabilities a business will need to succeed in future.*

Why does your company need a supply chain strategy?

A few years ago, I co-authored a book called *The New Supply Chain Agenda* in which it was argued that supply chain excellence is tied directly to shareholder value in public companies, and to owner equity in private companies. That is especially true for firms in the healthcare field. It is not widely understood that supply chain excellence, driven by a clear and compelling supply chain strategy, is one of the most underutilized tools for creating shareholder value.

Here’s why: A healthcare supply chain can comprise 50 to 60 percent of the company’s total costs, control 100 percent of the inventory, and usually provides the foundation for all revenue generation. It is the lifeblood of the firm and, as such, must be guided by a robust strategy. But because of its highly complex, cross-functional, pan-organizational nature, a supply chain strategy represents a wide and varied set of challenges in its scope and development—none more critical than getting buy-in to execute it.

Research found that only 18 percent of companies could produce an up-to-date supply chain strategy document with a detailed project roadmap extending forward three years or more.
The state of supply chain strategy development today

My colleagues and I recently conducted a survey on the state of supply chain strategy. Forty companies responded directly. These firms ranged in size from about $1 billion to more than $50 billion in sales. Respondents included supply chain professionals from healthcare retailers, big pharma, and medical device manufacturers. Sixty-two percent of respondents said they have some kind of a supply chain strategy but, upon further probing, only 30 percent of those respondents confirmed theirs were documented, multiyear strategies. Thus, only 18 percent of companies could produce an up-to-date supply chain strategy document with a detailed project roadmap extending forward three years or more.

A supply chain executive from a medical device company gave an all-too-common answer when asked the question: What is your supply chain strategy? “Well, we don’t have a supply chain strategy, but we desperately need one,” he said. In interview after interview, there was significant alignment around the need for an enterprise-wide supply chain strategy. What is going on here? If healthcare supply chain executives know that they need a strategy, why don’t they have one?

Why do so few companies have a supply chain strategy?

Surveys revealed the main reason to be “lack of time and resources,” but further probing revealed other reasons. One executive, for example, told us healthcare supply chains are simply less mature than those in other industries. Another supply chain professional told us his company didn’t have a supply chain strategy because “the senior executives in the firm don’t really understand the scope of the supply chain and its major potential impact on profit”. He further stated, “A lot of people just don’t know how to develop a vision, a strategy, a plan, metrics, and ... lead improvement.” Next, he added that his firm had multiple supply chains for each major medical product, and one strategy could not fit all, which made the strategy development process complex and daunting.

The reasons for the lack of a supply chain strategy go on and on. But they pale into insignificance when one considers the supply chain’s impact on a company’s fundamental ability to succeed.
How to plan for supply chain success in the healthcare industry

It must recognize, and take into account the existing and emerging industry megatrends and their implications. In healthcare, global trends are uncovered in the annual UPS Pain in the Chain survey and the implications of the trends manifest as the top concerns of supply chain decision makers. The top trends identified in the seventh annual survey are:

- Changing or increasing regulatory requirements
- Increasing product development specialization
- Changing reimbursement levels

The implications included concerns around regulatory compliance, product security, cost management, and product damage or spoilage.

An effective supply chain strategy must start with the current and future needs of your customers, be they big pharma customers, medical device customers, or even customers of third-party supply chain managers.

In all cases, a supply chain strategy must effectively evaluate, in an internal assessment, the company’s supply chain strengths, weaknesses, opportunities, and threats to its ability to operate at best-practice performance levels.

It must enable and satisfy the financial goals of the company, taking into account the current state of the organization, its people, and metrics.

What does a supply chain strategy encompass?
The strategy will include opportunities presented by new and evolving technologies. It must recognize the risks facing the healthcare supply chain.

It must take into account the challenges generated by foreign and domestic competition. When global pharmaceutical companies compete against each other with similar drugs, the most nimble supply chain may decide the winner. Retailers compete head to head with their supply chains on the best street corners in America; out-of-stocks are unacceptable, but so is too much inventory. Advances in competitor’s supply chains cannot be ignored.

A strategy identifies the new supply chain capabilities, processes and systems that are needed and then develops an organization and metrics framework to execute the strategy.

In parallel, the strategy must also create a business case capable of being fully accepted throughout the company, and be crafted to achieve senior management buy-in.

And finally, it must achieve results. That is to say, once again, it must generate actions that will create the supply chain capabilities necessary for future success.

Each element is a critical enabler in the development of a robust, yet agile supply chain strategy. There follow nine steps to developing your supply chain strategy. The steps are the same whether your firm is a healthcare retailer, a pharmaceutical company, a medical device manufacturer, or even a hospital.
How to plan for supply chain success in the healthcare industry

Where should supply chain strategy work start? Should you begin with your manufacturer or supplier and work logically forward through the supply chain just as material physically flows through it? Or should you start with your customers and work backward? The UPS Pain in the Chain study identified “new challenging customer demands” as one of the biggest concerns of healthcare supply chain professionals, and that is a reflection of many reasons I recommend all strategy work should begin with understanding customer needs.

Note that a customer’s stated requirements are actually the minimum requirements for a supply chain strategy. Often, in reality, customers don’t know what they want until you or a competitor exceed their expectations and deliver a capability that amazes and delights them. In healthcare for example, faster and highly flexible delivery may change the game, allowing the reduction of stored inventory, while still providing outstanding product availability. Retail customers will be more eager to buy from medical suppliers who are fast and nimble, and who can bring about lower costs and enhanced cash flow.

You have no opportunity to know how you can better serve your customers, however, unless you talk to them about their present and future supply chain needs and encourage them to share their “wish lists” with you.
Assess your internal supply chain capabilities against a benchmark of “best in class”

You’ve started with the customer, and are now grounded in what they need, both now and in the future. It’s tempting to immediately jump into strategy and project mode. But I strongly recommend you follow a disciplined strategy development process. It’s critically important at this point to step back and assess your internal supply chain capabilities versus best-in-class practices. And note well that best in class doesn’t mean “best in your industry.” It means “best, period.” Supply chain best practices transfer amazingly well across industries and even between retailers and manufacturers. For example, I’ve seen “lean” warehousing concepts work just as well in a Walgreens warehouse as in a Pfizer warehouse. And a new inventory management and forecasting process can serve a heavy manufacturer like Whirlpool just as well as it can serve a medical device maker. So look outside the healthcare industry for best practice breakthrough ideas.

The truth is that many companies in the healthcare field operate less sophisticated supply chains than other industries. That means healthcare supply chain strategists can learn a lot by looking beyond their own industry. Firms can most effectively evaluate their internal supply chain capabilities by conducting a thoroughly honest analysis of their supply chains’ strengths, weaknesses, and the opportunities and threats that they face (often simply called a “SWOT analysis”) and then bringing in an outside group to conduct the supply chain assessment. (UPS Marketing Director for the South Atlantic District, Scott Szwast, makes some useful recommendations about assembling a team to review healthcare supply chains in his white paper Supply Chain Management is the Key to Top-Line Growth in the 21st Century for Pharmaceutical and Medical Device Manufacturers)
How to plan for supply chain success in the healthcare industry

03  **Evaluate how supply chain megatrends will impact your supply chain**

This step in the development process immediately begs the question: “What are supply chain megatrends?” Every month a new article or conference lecture seems to present a fresh idea about the game-changing trends faced by supply chain professionals.

Consulting companies, academics, and even individual companies have their own opinions about and definitions of megatrends. But the different opinions as to what constitutes a megatrend reflect the backgrounds and experiences of the people who compile lists of them.

A good starting point in assessing megatrends is *Game Changing Trends in Supply Chain*, a report available online from the Supply Chain Management Faculty at the University of Tennessee. I recommend that you review the information available there, then list the supply chain megatrends that will impact your company’s supply chain. Next, you should brainstorm how you will need to react to each of them.

In the healthcare arena, you’ll need to consider the growing regulation and security megatrends. Front and center on the minds of companies doing business in North America are the implications of the Drug Supply Chain Security Act.

Stringent regulations for pharmaceuticals and medical devices exist in almost all countries. The U.S., Brazil, China, and others require organizations to track product movement from the manufacturer to the pharmacy, and trace financial and physical chains of custody from the pharmacy back to the manufacturer. It is no wonder the *Pain in the Chain* survey found that healthcare executives throughout the world agree that regulatory compliance is their number one concern.

04  **Analyze your competitor’s supply chain**

The essence of strategy sometimes lies in choosing what *not* to do. Every company places its bets carefully. Some operate on the razor’s edge of survival and cannot afford mistakes.

The healthcare industry is highly competitive, and it is almost certain that your supply chain could become a major point of differentiation—and a competitive advantage. Failure to understand your competitors may dramatically increase risk to your supply chain. Some firms go through the motions of gathering competitive data, but stop short of really analyzing it, instead just matching the competitor’s moves, not knowing whether they will prove to be good or bad.
The real art of competitive analysis is reading between the lines and anticipating the implications of certain competitive actions. Given the challenge of looking for insights in competitive analysis, many firms skip this step entirely in their strategy development. These firms merely develop a static strategy using a poorly informed assumption that the current competitive picture will remain the same. If you make this mistake, you may one day find yourself at the mercy of competitors who have better assessed the competitive landscape and are attacking your weaknesses—perhaps weaknesses you did not make yourself aware of.

The healthcare industry is highly competitive, and your supply chain could become a major point of differentiation—and a competitive advantage.
05 Survey supply chain technology

Technology plays a vital role in helping to enable and sustain the new processes and capabilities created as you execute the supply chain strategy. The Affordable Care Act is a major factor in motivating healthcare firms to expand the use of technology. New and emerging supply chain technologies can point to new innovative supply chain capabilities. Your competitors are scanning the horizon for new technology that helps them meet new regulations, better track and account for products, and to protect and speed them on their journeys from the factory floor to the provider's (or patient's) door. You should be doing the same.

In healthcare more than other industries, there is a growing need for technologies that can provide end-to-end visibility across all parties in the supply chain, from say a chemical plant to a pharmaceutical manufacturer, and then through a third-party logistics provider to a retail pharmacy, or the end consumer. Visibility prevents a “bullwhip effect,” in which each supply chain node inflates inventory to protect from unwelcome surprises by a partner. Also, these networks are global, adding another layer of complexity. Visibility technologies allow supply chain partners to be leaner and more proactive, lowering inventory and cost while improving service to customers through improved tracking and alerts, and shorter delivery times.

Reviewing technology at this stage may trigger your strategy team to connect new technical capabilities with the customer requests or wish list items you learned about in step one, and visualize a new supply chain process that can directly address and exceed your customer’s needs. The important thing to keep in mind is that the strategy must drive the need for any new technology, not vice versa.

Determining the gap between your current technological competence and the best-in-class level will be invaluable when you identify new strategic supply chain capabilities. Technology in the healthcare supply chain has its own unique twists, and technology adopters in this field need to walk before they can run. For example, the introduction of common GS1 product identification standards would go a long way to providing the foundation to automate many aspects of the healthcare supply chain.

Global GS1 standards (data standards used in bar codes and other product identifiers) can bring the whole healthcare supply chain industry together around uniform identifiers. And that, in turn, will facilitate automation of a whole host of operations in the supply chain, with major cost and inventory savings.

<table>
<thead>
<tr>
<th>If GS1 standards are used by the manufacturer, distributor, and customer, then:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Orders can be scanned at receipt and put away in an efficient manner.</td>
</tr>
<tr>
<td>- Accuracy can be better verified.</td>
</tr>
<tr>
<td>- Inventory systems can be automatically updated upon scan.</td>
</tr>
<tr>
<td>- The replenishment process can be automated.</td>
</tr>
</tbody>
</table>

Having accurate data visible throughout the supply chain will go a long way toward addressing inefficiencies in the healthcare order and inventory management processes. And, it will serve as a foundation for other supply chain technology. According to the seventh UPS Pain in the Chain study, nearly half of the respondents are undertaking an initiative like this.
Identify, prioritize, and mitigate supply chain risk

Now is the point in your strategy development journey to consider the risks your supply chain will face and how to deal with them. A clear threat to your supply chain is the lack of a robust process to identify, prioritize, and mitigate risks. Among the hundreds of companies I have interviewed, it is rare to come across one with a formal supply chain risk management process in place.

It is an astonishing fact that most firms ignore risks, sometimes with dire consequences. In the UPS Pain in the Chain study, 61 percent of respondents reported that events that cause supply chain disruptions are too unlikely or expensive to spend time planning for; therefore no contingency planning is done.

Often supply chain risk is a global problem. For example, several high-profile supply chain disruptions have occurred in Asia in recent years, with 34 percent of Pain in the Chain survey respondents in Asia reporting major supply chain disruptions. Not all natural disasters happen in Asia of course. For example, the 2010 Eyjafjallajökull volcano eruption in Iceland disrupted transatlantic supply chains including many of those moving healthcare products between North America and Europe.

The supply chain arguably faces more risk than supply chains in most other industries. The scope and reach of the supply chain argues for a formal, documented process to manage risk.

But, without a crisis to motivate action, risk planning often falls to the bottom of the priority list, a fatal error. Product recall risk, for example, needs a robust reverse logistics capability with enhanced visibility, all laid out in well-documented proactive plan including a unique device identification and/or serialization strategy.

The supply chain arguably faces more risk than other areas of the company due to its increasingly global nature and its systemic impact on the firm’s financial performance.
Determine the new supply chain capabilities and develop a project plan

By this stage you have analyzed the needs of your customers, and completed an honest internal assessment. You have completed an analysis of your competitors and reviewed the landscape of supply chain technology. And finally, you have realistically faced the risks to your supply chain. At this point, you have built the foundation necessary to develop an outstanding supply chain strategy.

Now is the time to identify the new supply chain capabilities needed, prioritize them, and decide how to get the most important things done first. This is the culmination of the entire process where your team identifies the real work that will result from the strategy. The overarching goals for the supply chain will likely call for highly aggressive, multiyear targets for cost reduction, inventory reduction, and product availability improvement. So choose the critical new supply chain capabilities and prioritize them into a project plan that delivers the company’s goals.

The overarching goals for the supply chain will likely call for highly aggressive, multiyear targets for cost reduction, inventory reduction, and product availability improvement.
How to plan for supply chain success in the healthcare industry

It is incumbent upon supply chain executives to speak the language of the executive suite, and the board of directors, and sell their recommendations based on how supply chain excellence will enhance the top line, minimize business risk, and generate major improvements in cash flow and shareholder value.

08 Evaluate organization, people, and metrics

Your new supply chain strategy could very well create the need for a different supply chain organization, including additional people. Also, new metrics will almost certainly be required to track performance and enable you to make adjustments. Therefore, successful implementation of the supply chain strategy will require that you reevaluate your organization, people and metrics.

Outside organizations frequently form part of healthcare supply chains, and the supply chain leader can end up with a virtual symphony to conduct. Every operation brought in-house or outsourced affects your supply chain, and every provider and person along the value chain has influence on the supply chain. Therefore your metrics must measure and drive the right collaborative behaviors up and down the chain.

Organization

The ever-broadening scope of supply chain sophistication drives many firms to create a larger, more expansive supply chain organization that encompasses logistics operations, customer service, and wide-ranging planning activities. That expansion can go quite far. Some supply chain organizations also include procurement and manufacturing on the supply side, and order/customer management on the demand side.

People

New supply chain capabilities identified by the strategy will no doubt require new skills to both implement and manage over time. Healthcare supply chains will have to add experts in security and regulatory compliance. New skills are becoming essential to deal with the dynamic regulatory environment, as well as to adapt modern technology to controlling cost throughout the supply chain.

Metrics

It makes little sense to change the strategy and the organization, and then rely on the same traditional set of metrics. The right supply chain key performance indicators (KPIs) aligned with the right accountabilities will help the organization track performance, meet targets and goals, identify the effects of change imposed from outside, and proactively address the inevitable problems that engulf any firm in a competitive industry.

09 Develop the business case and get buy-in

People throughout your company need to support the supply chain strategy. From the senior executive level to mid-management and all the way to the frontlines, everyone needs to understand and work toward the common goals that your team has laid out using the capabilities and methods you have enabled. A firm’s supply chain process is the ultimate cross-functional entity. Without explicit buy-in from the people who affect it, and are affected by it, the entire strategy creation process becomes pointless.

But buy-in is by no means a given. Only 8 percent of the companies surveyed in a recent study reported “excellent” buy-in to their supply chain strategy. People in the executive suites of healthcare companies often have little or no supply chain background. Therefore it is incumbent upon supply chain executives to speak the language of the executive suite, and the board of directors, and sell their recommendations based on how supply chain excellence will enhance the top line, minimize business risk, and generate major improvements in cash flow and shareholder value.

Getting buy-in is often quite difficult for supply chain projects, and there are many examples of supply chain leaders who faced serious resistance to their strategy proposals. As one executive put it, “Someone’s ox is being gored with everything we try to do.”

But getting the company and its people to support the supply chain strategy is critical, and much more likely if you follow a concrete process that starts with developing a great case. A tight business case is not a sufficient condition for buy-in, but it is a necessary one.
Conclusion

Healthcare supply chain executives too often find themselves at the center of the daily storm, striving to balance very demanding operational objectives while satisfying customers, cutting costs and helping grow revenue. They must deliver results today, while working on capabilities that will make their companies competitive in the future. They operate in the same maelstrom of competing priorities and limited time as their executive peers—but their scope of activities is broader, and they have less direct control over all the moving parts.

In this demanding environment, strategy development often takes a back seat. But delivering supply chain excellence in the long run cannot be done without a documented, multiyear supply chain strategy, especially in the healthcare industry. I believe that the work to develop one is straightforward, and that you can accomplish it in a timely manner by following the preceding nine steps.

Citations
2 Available at ups.com/healthcareresources
3 Available at forums.utk.edu/publications/white-papers.asp
About the Pain in the Chain Healthcare Survey

The seventh annual UPS Pain in the Chain survey entitled *Embracing Risk: It’s Time to Capitalize on Untapped Opportunities* was a blind, in-depth phone survey conducted by TNS, on behalf of UPS, of more than 530 senior-level healthcare executives in the U.S. and Canada, Western Europe, Asia and Latin America in the pharmaceutical, medical device and biotech industries between January and March 2014. Visit [healthcare.ups.com/pitc](http://healthcare.ups.com/pitc) and scroll down the page to download the survey.

About UPS: Solving your supply chain challenges, maximizing your supply chain opportunities

Creating a supply chain strategy is the single most important action you can take to make sure your supply chain delivers the greatest value at the least possible cost. But identifying and overcoming the challenges that stand between possibility and profit, while keeping your operation lean and ahead of its competitors—and taking advantage of emerging trends and technology—can take time and resources.

At UPS, we specialize in solving problems to create healthcare supply chains that take your valuable products to more places, for better outcomes. We do it every day, for healthcare companies huge and small, around the globe. And if we’re doing it for them, we could be doing it for you. Let’s continue the conversation about the importance of your healthcare company’s supply chain strategy. Visit [healthcare.ups.com](http://healthcare.ups.com) for more information, and scroll down the page to contact UPS.

About the author

J Paul Dittmann, Ph.D. is Executive Director of the Global Supply Chain Institute at the University of Tennessee College of Business Administration.

He has consulted for over 50 companies and is the author of two books: *The New Supply Chain Agenda* and *Supply Chain Transformation*. 