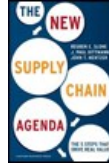


Chapters *To Go*



The New Supply Chain Agenda: The Five Steps That Drive Real Value

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Chapter 8: Case Studies in Developing and Executing a Supply Chain Strategy

As we have stated throughout this book, shareholder value depends in the long run on creating economic profit, and supply chain excellence is a powerful but overlooked tool for increasing economic profit. Supply chain excellence requires developing and executing a strategy based on the five steps covered in the preceding chapters. This chapter provides detailed case studies of two companies we were involved with—a retailer, Stage Stores, and a manufacturer, Whirlpool. Each of these firms developed and then executed a supply chain strategy that delivered excellence, economic profit, and shareholder value. In both cases, we had more than a front-row view of the considerable challenges. We were part of the team that dealt with them. At Whirlpool, Paul Dittmann and Reuben Slone were employees at the time and were the insiders in developing and executing the strategy. Stage Stores brought Tom Mentzer onto the board of directors to provide supply chain expertise at a critical point (he continues to serve on the board).

Case Study: Whirlpool

In 2000, Whirlpool North America flipped the switch on a massive new enterprise resource planning (ERP) system, but that technology rollout had less than the desired effect.^[1] At the time, Whirlpool shipped close to seventy thousand appliances a day to North American customers. The day after the company went live with the new system, it was able to ship only about two thousand units. Despite many hours of training, when the day came, the line people struggled to use the new system and were confused about where to get key transactional information needed to generate shipments. In effect, they felt as if they were flying blind. As one said, “It felt like we were hurtling down the highway at a hundred miles an hour, trying to steer using the rearview mirror!”

This was an unprecedented disaster in a company with a long and proud history. A barrage of bad press followed. Senior people caucused in conference calls every day at 6 a.m. and 6 p.m. to discuss progress and how to get out of the situation. Eventually, through brute force, a never-say-die company culture, added resources, and numerous work-arounds, shipping recovered to previous levels. But the recovery came with a major cost increase, to say nothing of the many burned-out people who struggled to get through each day. The ERP system survived, and even though the situation improved, the experience of being an example of ERP folly had left scars. At approximately the same time, Whirlpool's number one competitor, General Electric, decided to invest in and significantly upgrade its supply chain operation. The combination of these two events had a devastating impact on Whirlpool's ability to compete. Cost and inventory increased, and product availability dipped into the 80 percent range versus over 90 percent for its major competitors.

Jeff Fettig, then Whirlpool's president and COO (he is now chairman and CEO), was tired of hearing about spotty service and high logistics costs. Sales had just risen to record levels with the launch of some innovative products and a fortuitous uptick in housing starts. With the rest of the company chugging on all cylinders, there was only one thing holding Whirlpool back: the struggling supply chain. Fettig hired Slone from General Motors and gave him overall responsibility for the supply chain. Slone then brought Dittmann into the mix from a global supply chain assignment at Whirlpool.

On day one of our new assignment, we decided to talk with the sales leadership. They told us, “Your supply chain organization is basically a ‘sales disabler,’ ” along with other unprintable comments. They were justifiably frustrated and had been fighting this battle for too long. We found ourselves on the defensive from the outset. We knew the company was tying up too much capital in finished-goods inventory, yet failing to provide the product availability customers needed. By this time, availability hovered around 87 percent, when it really should have been at least 95 percent, based on industry benchmarks. Costs were excessive, as a result of the number of work-arounds hurriedly put in place to recover from the ERP implementation challenges. Some of our colleagues grimly joked that in surveys on the delivery performance of the four biggest appliance manufacturers, Whirlpool came in *fifth*. Economic profit was being destroyed on all fronts.

Developing the Strategy

We knew we needed a strategy and needed it fast. But we also knew it had to be done right. At the top level, we had one simple idea: get the right product to the right place at the right time—all the time. It got complicated very quickly, however, when we faced the scale of the problem. Whirlpool made a diverse line of washers, dryers, refrigerators, dishwashers, and ovens, with manufacturing facilities in thirteen countries. It sold those appliances through big and small retailers and to construction companies and developers that build new homes. The logistics network at the time consisted of eight factory distribution centers, ten regional distribution centers, sixty local distribution centers, and nearly twenty thousand retail and contract customers. To top it off, there were several thousand SKUs.

We decided to formulate a battle plan that would include all five steps toward supply chain excellence, following the process we outlined in chapter 2. We knew that we needed the right people with the right skills; that we would need new technology to supplement the existing ERP technology; that we would have to align closely with sales, marketing, and manufacturing; that we would have to start with our customers and collaborate with them; and finally, we would need a solid plan for execution. Before we could begin to imagine those things, the team had to first look to the future and determine what it would mean to be world class in supply chain performance.

That question could be answered only by focusing on customer requirements first. The approach we used in developing the supply chain strategy was to start with the last link—the consumer—and proceed *backward*. Starting with the customer might seem obvious to some, but the overwhelming tendency in manufacturing organizations is to think about the supply chain as something that originates with the supply base and moves *forward*. Supply chain people naturally find their comfort zone there, since that part of the chain forms their base of experience and control. But the unfortunate effect is that supply chain initiatives often run out of steam before they get to the end point of the customer—their real goal. Whether or not they make customers' lives easier becomes an afterthought.

Our team found that if we *started* with the customer, the customer couldn't be an afterthought. Here, we got lucky. Whirlpool had just completed new research focusing on consumer needs. In the report, we found, not surprisingly, that people value “delivery with integrity,” that is, the ability to get it there fast is important, but not as important as the ability to get it there when you said you would. We coined a new slogan: “Give a

date, hit a date.”

Identifying Priorities of Retail Customers

We next moved upstream in the supply chain. Whirlpool faces fierce competition all over the world. On top of that, it has very smart retail partners that deal with numerous other suppliers. Because these retail customers also buy electronics and apparel and so on, Whirlpool is constantly being challenged by the benchmarks of other, more nimble industries. Technologies continue to evolve, channel power continues to shift, and the bar is constantly raised.

We needed to better understand the desires of our retail trading partners. So we conducted interviews to define requirements by segment. We looked at smaller retailers as well as the big three: Sears, Lowe’s, and Best Buy. We asked them about their overall availability requirements, their preferences in communicating, and what they would like to see in terms of collaboration. We asked them about inventory management and how they might want Whirlpool to assist in it. In all, we discovered twenty-seven different dimensions that the retailers used to judge our supply chain capability.

Benchmarking the Competition

Of course, we knew customers’ expectations and perceptions are shaped in large part by what others in the industry are doing. So Whirlpool benchmarked its competitors—primarily GE, which at the time was its biggest rival. We obtained cross-industry information and competitive intelligence to make sure we had a broad and objective assessment of supply chain capabilities. Then we mapped what would be considered world-class performance for each of the twenty-seven capabilities and how much it would cost to reach that top level. It turned out that to prevail on every front, we would need to spend more than \$115 million, which just wasn’t feasible in the climate we found ourselves. It was time for our team to get serious about priorities.

We quickly staked out the areas where a relatively small investment would yield supremacy, usually due to an existing strength like our industry-leading delivery service. We simply decided to cede a few areas (for example, a couple of e-business capabilities) as not that important to our retail partners. We finally settled on a \$60 million plan that would meet or beat the competition in all important areas.

Building the Strategy

At this point, we began the hard process of developing the strategy. In building the strategy, we used the five steps, but did not have the luxury of addressing them in sequence. The business situation demanded that we launch as much as possible in parallel. Immediately we focused on building and deepening the *talent* available and getting people in the right jobs. It’s a good thing we did, given the lead time required to find the right people. Next we identified the new *technologies* that we would need from warehouse systems to inventory management systems to e-business solutions. Then, starting with our retailers’ needs, we developed a plan to *collaborate* with them. At the same time, we knew that we had to build all this on a foundation of *functional alignment*. An essential step along that path of *managing change* was to sell the revolution inside the company.

Internal Collaboration: Selling the Revolution

When to involve internal functions like sales, marketing, and manufacturing in planning a major improvement effort is always a difficult decision. Their time is scarce, and their executives typically don’t want to be embroiled in the details. Our team knew it had to have its act together and have a solid plan to which internal customers could respond. We maintained a careful balance between seeking their guidance and selling our vision. For example, we knew we would have to eventually prioritize products and customers, even though the sales function at first wanted great availability for all, with no exceptions.

Our strategy team liked to think we had that mandate from the CEO to get the supply chain fixed. But it wasn’t the kind of mandate that comes with a blank check. Like most well-managed companies, Whirlpool will not undertake a capital investment without a compelling business case. As a cost center in the company, the supply chain had to justify every project wholly on expense reductions and working capital improvements. In the highly conservative Whirlpool financial environment, even if our team believed that better product availability would boost sales, we couldn’t count that in the business case because it was considered too speculative.

We spent an enormous amount of time talking with the brand general managers and others who needed to eventually support the strategy. The attitude of the sales vice president was typical. Initially, our meetings were confrontational. We weren’t coming from a base of credibility, and he challenged everything we said. He had a right to. For example, when we spoke of greatly improving availability while still reducing inventory, he just didn’t believe that was possible. The supply chain had done nothing but let him down. We knew we had to persist despite the opposition and justified hostility. We darkly joked, “If he won’t let us in the door, we’ll go through the window. And if he locks the window, there’s always the air vent!” Eventually, his attitude changed, as we showed him how we used his feedback to mold the strategy. He even came to believe that with there was a way to cut inventory and improve availability by being smarter about how we placed inventory in the warehouse network. Finally, he told us that he was pleased with the direction, and we knew then that he felt the strategy was partly his own. A similar story played out in other functions. We found the process of getting functional alignment to be tremendously time consuming, but absolutely essential.

Along the way, we became particularly concerned about cherry-picking. We knew that the first reaction to a multimillion-dollar price tag would be, “OK, what can I get for 80 percent or 60 percent of that total?” We knew the whole strategy—all five steps—wove together, with each part supporting and relying on multiple other parts.

What helped here was the competitive analysis, in which we plotted Whirlpool’s capability levels against competitors. We found that we had a real problem with competition in some areas, such as the ability to consolidate complete orders in one load. The competitive instincts of our

cross-functional colleagues kicked in. No one wanted to be left behind. We then extrapolated to show how the strategy overcame the gap and put Whirlpool in a number one position.

Getting Approval

After all this work, we needed to get the final approval and then start implementing the project. We knew we had a good plan and were raring to get started. But the final approval meeting of the senior executives was wrapped in a great deal of tension. We knew we were asking for \$60 million, funds that included, among other things, money for IT systems and additional people to manage projects. During a period of cutbacks, we were asking for ten times more money than had ever been spent for supply chain process improvements in the past. The funds would have to come from the budgets of the people sitting around the table.

Our team hoped that all the work we had done to communicate and get buy-in was enough to obtain the final approval, but we had some doubts. We knew we had support, but we also knew that the executives around the table had already been through budget cuts. In effect, we were asking them to cut even deeper to fund the new supply chain strategy.

After we presented the strategy to the executive team, Michael Todman, the president of Whirlpool North America, made an anxiety-provoking move by asking each member of his staff to give an immediate thumbs-up or thumbs-down on the investment we had just proposed. We felt enormous relief when we heard the first voice say yes. It was the executive who headed up sales to Sears. The heads of the KitchenAid, Whirlpool, and other brands followed suit. The senior vice president of operations tried to voice his support at the beginning of the meeting, but was asked to wait. Now that it was his turn to vote, he did it with a flourish. "I am fully committed," he said, "to moving our supply chain from a liability to a recognized competitive advantage." Only after Todman had heard from everyone in the room—brands, sales, finance, human resources, and operations—did he cast his vote. With that last yes, the tension broke, and everyone was smiling and nodding. Our team had a sense of triumph, but also trepidation. We knew now there could be no excuses. We were on the hook to deliver some serious value.

Implementing the Five Steps

We quickly launched nine new initiatives, followed by others as soon as we had the capacity. Some were large systems implementations and others involved process improvements. Some examples show how we began to address the steps toward supply chain excellence.

Internal Collaboration

One of the earliest successes in the turnaround of Whirlpool's supply chain was the rollout of a new S&OP process, which took internal functional alignment to a new level. Prior to this, Whirlpool had the typical problem of functional silos. As we look back now, it was about average for the functional alignment problems we see across industry. We installed a process to pull together the long-term and short-term perspectives of marketing, sales, finance, and manufacturing and produce forecasts on which all the participants could base their game plans.

External Collaboration

At the same time, our team focused on outside collaboration with our biggest retailers and launched a collaborative planning, forecasting, and replenishment pilot (CPFR), much like the West Marine initiative discussed in chapter 6. In Whirlpool's case, the collaboration initially focused more on its retail customers rather than its suppliers. The supplier collaboration focus came a little later.

Traditionally, Whirlpool forecast how many appliances it would sell through a retail customer (Sears, for example) to a given market and, at the same time, that customer developed its own forecast. Each company had some information that the other lacked. There was no sharing of forecast information whatsoever. With CPFR, Whirlpool used a Web-based tool to share forecasts (without sharing the sensitive data behind them), and they collaborated on the exceptions. As simple as it sounds, this level of information exchange isn't easy to pull off with busy schedules and a mass of data to analyze, but it's been a real breakthrough. Within thirty days of launch, forecast error was cut in half. Where originally there was close to an 80 percent error rate (which isn't hard, given the small quantities involved in forecasting individual SKUs for specific warehouse locations), soon Whirlpool achieved a 35 percent error rate at the SKU level. To put this in perspective, a one-point improvement in forecast accuracy for the entire company reduces total finished-goods position by \$3 million.

Change Management

These were just two of many initiatives launched in rapid succession, quickly hitting two of the excellence steps. As all the initiatives were launched, it was absolutely critical to keep them on track using the principles of supply chain project and change management we outlined in chapter 7. The key was to think big but focus relentlessly on near-term deadlines. To maintain momentum and an image of rapid progress, we organized the change effort into thirty-day chunks, with an average of three new capabilities, or business releases, rolling out monthly—some on the supply side, some on the demand side.

Technology

After six months, we had already done a lot to stabilize product availability and reduce overall supply chain costs. Shortly after, we took a huge step forward by implementing a suite of software products, allowing us better inventory visibility and the capability to set precise safety stocks for each individual SKU at each warehouse location. One year into the overall strategy implementation, Whirlpool achieved historic low inventories and a sustained, high service level. Shortly after, availability improved to a sustained 93 percent availability across all brands and products, a high level for this industry at the time. (Momentum later carried Whirlpool a few percentage points higher.) The team delivered slightly more than promised by reducing finished-goods working capital by 15 percent and improving total cost productivity by 5.1 percent.

Running into Problems

Of course, not everything went smoothly: we managed to commit all of the three deadly sins we discussed in chapter 4 in implementing new

technology. We admit that this is particularly ironic, given that technology trouble had been the harbinger of Whirlpool's woes in the first place. A number of the IT projects fell behind due to expansion of the project scope. After missing a couple of deadlines, we finally put in place a process to relentlessly manage project scope, with disciplined weekly reviews of each project. We also encountered one problem with a beta IT system that surprised us and caused a delayed release as we fought through the software bugs. And although we knew we had to do a lot of cross-functional alignment and selling for each individual project, we underestimated the effort. We scrambled to put change management tasks in our project plans just like any other project task.

Results

Our efforts were all worth it. Whirlpool's customers strongly voiced their approval. A year later, a blind Internet survey of the retailers showed Whirlpool to be "most improved," "easiest to do business with," and "most progressive." After these results came out, the vice president of sales said to the supply chain organization, "You're good now, but more important, you're *consistently* good." It was a turning point in the trade's perception of Whirlpool. Operational results continued to improve. The number of days' worth of finished goods in inventory dropped from 32.8 to just 26. Annual freight and warehousing total cost productivity rose from 4 percent to 7.2 percent. Working capital was reduced by almost \$100 million and supply chain costs by almost \$20 million. Did this add up to value in excess of the expense the leadership team approved? Absolutely. Total payback on that original investment occurred within the first two years.

Developing Talent for the Future

We certainly did not forget about talent. With all the new initiatives, we knew we needed more people, fast. But we also resolved to make sure we hired the right talent for the future. We were looking for young people with potential whom we felt had a good foundation in the five skills we outlined in chapter 3: a global orientation, the ability to see the supply chain as a system, inspiring leadership, superior technical skills, and good business skills. We recruited young people from companies with strong supply chains and from premier supply chain-oriented MBA programs. We were lucky because the talent drive coincided with a downturn in the industry. On the other hand, it might have been the excitement of a turnaround situation that drew the best and brightest to Whirlpool. These people were not only essential resources to manage the many initiatives we launched, but also the core supply chain talent for the future.

Finally, our core supply chain team members weren't so arrogant as to believe that we didn't need development ourselves. So we assembled a supply chain advisory board and chartered its members to keep challenging us. They reviewed our projects and challenged us to take on more demanding objectives, pushing us closer to the leading edge of the discipline.

Sustaining the Change

Three years into the project, our supply chain team continued to implement new capabilities. This didn't get simpler over time. One of those later projects was the focus on something we called "Plan to Sell/Build to Order." The concept is based on the idea that certain high-volume SKUs—the heart-of-the-line dishwashers, refrigerators, washing machines, and other products that appeal to a broad range of consumers—should never be out of stock. They are the equivalent of a supermarket's milk and eggs; running out of them has a disproportionately negative impact on customers' perceptions.

We formulated a supply chain strategy that allowed identification of these SKUs across all trade partners in all channels to ensure that the replenishment system for the regional warehouses kept them in stock. That constituted the "plan to sell" part of the program. At the same time, for the smallest-volume SKUs, we eliminated the entire inventory and operated on a pure pull basis, with a new, more flexible build-to-order process. The inventory savings on the small-volume SKUs helped offset the costs of stocking up on the high-volume SKUs.

We also worked on the capability to set service levels by SKU. In effect, we recognized that some products are simply more important than others, and that having one availability target for all products, regardless of their strategic importance, does not serve the company. Some products are more profitable; some hold a unique place in the brand strategy. Again, it's easy to grasp the value of being able to vary service levels accordingly, but in a sprawling business like Whirlpool, which ships thousands of different SKUs a day, it was a very difficult thing to accomplish.

Whirlpool is a great company. Of more than fifty purely U.S.-based appliance firms that were doing business in the 1950s, only Whirlpool has survived, growing to the world's largest. By building supply chain excellence, the company has delivered enough economic profit to survive the carnage of this incredibly competitive industry. Whirlpool clearly understands that supply chain excellence will be critical, as it finds a way to thrive in the future.

Does the process of developing and implementing a supply chain strategy work the same way for a retailer as for a manufacturer like Whirlpool? We find that there are far more similarities than differences. Retailers and manufacturers face many of the same supply chain problems, as both strive to provide excellent availability with the lowest operating cost and inventory. In the process, both face similar issues of too many SKUs, too much slow-moving inventory, a complex global physical network, ineffective matching of supply with demand, and so on. In the next case, we focus on a retailer, Stage Stores. It developed a supply chain strategy from 2001 to 2002, based on the same five steps to excellence.

[1] Reuben E. Slone, "Leading a Supply Chain Turnaround," *Harvard Business Review*, October 2004, 114–121.

Case Study: Stage Stores

In September 2001, Stage Stores Incorporated (SSI) consisted of small clothing stores in small towns across the southern United States, mostly in the states ranging from Arizona to Alabama.^[2] The company's corporate strategy was to build small stores, stocked with brand-name clothing, in towns where little or no competition for brand items existed. This overall corporate strategy required Stage Stores to build a strong

bond with medium- to higher-income women and households. The company also wanted to maintain its strong balance sheet and cash flow, along with solid growth in sales and earnings.

When the new SSI CEO, James Scarborough, and a new board took over in September 2001, SSI was just coming out of bankruptcy in the late 1990s. Scarborough was convinced that the corporate and marketing strategies were sound, but to continue to grow shareholder value, the company needed a better understanding and implementation of supply chain management—something he considered critical to his growth strategy for the company.

Talent

Scarborough insisted that his management team include an experienced supply chain management executive, and that the board of directors include a subject-matter expert. Eventually, Tom Mentzer joined the board to fulfill this role. Both Mentzer and the in-house supply chain executive agreed with Scarborough that the problems of the company prior to 2001 had been caused by geographic expansion without consideration of the supply chain management implications. For instance, the company had opened new stores far from the existing distribution center, so that the delivered-to costs to those stores made it impossible to keep prices consistent with customers' expectations and allow the store to make a profit. As a result, new stores were draining profitability from the existing store base and were a big cause of the earlier bankruptcy.

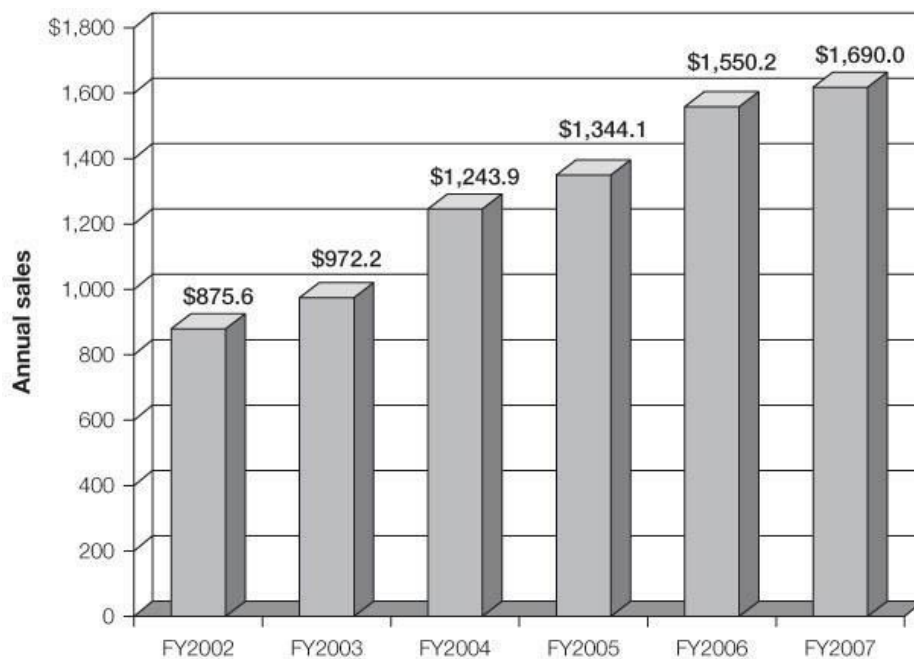
The board consisted of members in the various areas that are typically represented at this level—investor relations, audit, compensation, and governance, for instance. The CEO asked Mentzer to work with the executive team to improve supply chain management and to sensitize the board to the shareholder value implications of supply chain management. The CEO had in place the talent (chapter 3) and the mandate for change management (chapter 7) from the board and down through the organization.

Internal Collaboration

SSI developed an integrated holistic view of the end-to-end supply chain, starting with the customer and going back to the supplier, much as Whirlpool did. From that effort, the company knew that internal collaboration would be essential to achieve the end-to-end supply chain integration. This view served the company well. In a time when many clothing store chains were having financial problems or going bankrupt, SSI maintained a steady growth in sales and earnings from 2002 to 2007 by coordinating traditional functions across its supply chain (see [figure 8-1](#)).

Retailers like SSI are generally organized around three functions for each store department—store operations, logistics, and buying—and so have the same problems as any other company aligning functionally. Many retailers consider the independence and often competitiveness of these functions “healthy,” but causing a great deal of supply chain problems. Buyers travel the world looking for and buying products they think will sell well in their departments in the store, often without communicating with their logistics and store operations counterparts.

In the past, departmental independence resulted in shipments arriving at an SSI distribution center without advanced notice given to the logistics manager or information on what to do with the product. The standard approach was to place the product in storage and wait for the stores to ask for it, a practice that incurred costs for inventory and increased needed storage capacity. Likewise, the SSI store operations managers were not given advance notice about the availability of products, so they could not plan how to display and price the product for optimal sale. This practice caused uncoordinated store displays and markdowns on items that could not be moved. All these outcomes adversely affected the economic profit formula from chapter 1 (lower sales, higher cost, and higher capital investment), and negatively affected shareholder value, a big factor in the earlier bankruptcy.



Source: Stage Stores sales data published in annual reports. Used with permission.

FIGURE 8-1: Consistent sales growth at Stage Stores (\$ millions)

Functional Alignment Through Reorganization

SSI attacked the functional integration problem partly through organizational change. Each department (e.g., ladies, misses, boys, men, shoes, cosmetics) in the chain was given an office in the central headquarters. In that office sat the buyer, the logistics manager, and the store operations manager for that department. Further, bonuses for the three managers were based on the *combined* impact of their decisions on purchasing price, logistics costs, and store markdowns. Thus, by shifting location and rewards, the three traditional retail chain functions were encouraged to coordinate, rather than compete. In a year when sales growth was flat, earnings increased by 8 percent, aided by cost improvements in buying, logistics, and store operations. Improved merchandising meant less product sold at marked-down prices.

One example illustrates the change created by this functional alignment. An SSI buyer was negotiating in Ecuador on \$500,000 worth of silver-plated photo albums for the housewares department. Rather than make the decision on her own, she got her logistics counterpart and her store operations counterpart on a conference call and described the potential purchase. "If I can get these items in the stores by September 1," said the store operations person, "I could sell twice that many by Christmas, without a markdown." The logistics manager responded, "To have them in the stores by September 1, I need them delivered to the distribution center by August 1." With this plan, the team agreed it was safe for the buyer to buy twice what she initially intended, knowing they would have them in time to sell them all.

The logistics counterpart coordinated with a trucking company to have the container delivered on time with advance shipment notification (ASN), so he knew when the container had been picked up at the Port of Houston and was en route to the distribution center. The store operations team member planned the in-store display with the confidence that the product would arrive on time. This allowed a reduction in logistics costs because the product was delivered to the distribution center on time. The product could be cross-docked to trucks for store delivery without the labor cost of putting it in storage *and* taking it out of storage. The trucking company was given an inbound shipment to the Stage Stores' distribution center balanced by an outbound shipment to the retail stores, resulting in lower transportation costs. This coordination resulted in the sale of twice as many products as originally planned, all at nonmarkdown prices, with lower inventory and transportation costs. These factors combined to significantly increase the gross profit dollars of the housewares department on which the three members of the team received their annual bonus. Not coincidentally, the gross profit increased the economic profit for the firm because the profit was achieved with less cost and working capital investment.

In general, across all departments, logistics cost savings at SSI took several forms. A reduction in inbound and outbound transportation costs at the distribution center resulted from a dramatic increase in cross-docking. Again, this meant that arrivals of purchased products could be coordinated with shipments to stores, so trucks were unloaded and the products were remixed to fill store orders and then placed back on the same trucks for delivery to the stores. Since the trucking companies were receiving inbound and outbound shipments, their rates went down. Because 27 percent of all inbound products were now cross-docked, they did not take up expensive distribution-center storage space. Finally, limited storage space at the individual stores was used only for products that were ready to go immediately onto the shelves for sale. All these improvements led to greater sales with lower cost and less inventory, the key components of economic profit.

Functional Alignment Through Performance Measures

SSI also achieved functional alignment by changing performance measures to resolve problems such as one that had arisen from some ingrained buying practices. Buyers were originally compensated for staying within established monthly buying budgets, regardless of store sales. So they bought what they thought they would need at the beginning of the month and then did not buy again until the next month. It was simply convenient to spend their budget allotment all at once, but this meant a whole month's worth of inventory would show up at the distribution center in one week. This caused considerable overtime expense at the distribution center in the peak week and layoffs during the

rest of the month. Further, because the buyers often produced inaccurate monthly forecasts, the distribution center ran out of inventory to ship to the stores by the end of the month, leaving the stores with stockouts. To compensate, the stores got into the habit of ordering more than they needed, which resulted in overstocks—and eventual markdowns.

By educating the buyers on the impact they were having on logistics costs and in-store service levels, and changing their compensation package to reward smoothing out of deliveries, the company solved considerable cost and out-of-stock issues. In fact, annual distribution center costs were decreased by over \$2 million for workload smoothing, in-store availability increased by 4 percent, and in-store overstocks were minimized.

External Collaboration

Internal functional integration was not going to solve all of SSI's challenges. Scarborough knew that the company needed collaborative relationships with key suppliers and trucking companies and provided the executive leadership and encouragement to make that happen. For example, the board viewed vendor penalties (fines the vendor paid to SSI for nonperformance) as a source of revenue. But Mentzer demonstrated to the board that when a vendor failed to make a delivery to the distribution center, SSI had to expedite the shipment at a cost of \$1,500. The vendor penalty "revenue" may have gone up by the \$1,000 penalty fee, but SSI was really \$500 worse off (and the vendor was \$1,000 worse off). Rather than create costs for everyone, it was far better to improve collaboration with suppliers to help minimize late deliveries. Thus, the board set a goal for the executive team to bring vendor penalties down to zero, through collaboration with the suppliers.

SSI also worked with key suppliers to share critical in-store demand. In return, vendors agreed to hold back shipments to SSI until they were needed. These shipments were always accompanied by an advanced shipment notification, so the distribution center manager, the buyers, and the store managers knew exactly when the next shipment would arrive. This lowered vendor operations costs; SSI overstocks and distribution center shipping and receiving costs; SSI inbound and outbound transportation costs; and store overstocks.

To control transportation costs to its hundreds of stores in over twenty states, the CEO encouraged his chief supply chain executive to work with a few key trucking companies to help decrease deadheading, or miles traveled with empty trucks. For example, they developed a plan to bring full-load shipments to the Jacksonville, Texas, distribution center and to encourage the trucking companies to set up distribution hubs at key locations. The large truck could then make full-truck, long-haul shipments to the distribution center where goods were cross-docked and sent off on a second long-distance run to distribution hubs where goods were reloaded on smaller trucks for short-haul store delivery. SSI also worked with its key trucking companies to obtain freight from other shippers so the percentage of full-truck shipments increased. Cost savings were passed along to SSI, which lowered its cost per carton, and in a win-win situation, the full loads increased the trucking company's efficiency and profitability at the same time.

Technology

The CEO realized that his corporate, marketing, and supply chain strategic plans could not be accomplished without putting the proper operational tools in the hands of his people—tools that allowed buying, logistics, and store operations personnel to communicate with each other, with transportation providers, and with suppliers. With new software, buyers were able to identify the key vendors by department and type of store, enabling more targeted projects with the vendors. Other tools that SSI implemented allowed analysis of sales by product, vendor, department, and store, so it could fully understand the demand patterns hitting the chain. The company went through a detailed search process to select a retail-based ERP suite to accomplish this and avoided the beta technology problem we discussed in chapter 4. The result was a system that allowed anyone in the company to look at sales by category by store, aggregate this information for planning purposes at the distribution center, by vendor for merchandising, and inbound shipments for store operations.

Change Management

All these changes in the operation of the supply chain resulted in major financial improvement. The seventy-five stores opened in fiscal year 2002 had average net sales of \$1.5 million, at a normal sales level for a new store. More importantly, the new stores produced an average economic profit of 25 percent of sales (i.e., from selling more with less inventory and lower logistics costs). [Figure 8-1](#) indicates a company with a steady sales-growth pattern. Earnings per share also exhibit a steady growth pattern. In addition, according to the Stage Stores' management, stock analysts complimented the company for its "pristine" balance sheet, with little debt.

Building on Supply Chain Synergy

In the past, supply chain considerations had not been a strong part of SSI's acquisition strategy. This was about to change. SSI's pristine balance sheet allowed it to look around for advantageous acquisitions, and supply chain was front and center. Two companies, Peebles and B.C. Moore, caught the attention of management and the board. Both companies followed a similar marketing strategy to SSI's and were strong geographic matches with SSI. Stores north of South Carolina and Tennessee were Peebles stores, stores in Georgia were B.C. Moore, and the rest were SSI stores.

Redundant Distribution Centers

Before these purchases were made, SSI conducted the usual due diligence analysis, including the supply chain. The supply chain chief executive analyzed the costs of the two Peebles distribution centers (one in South Hill, Virginia, and one in Knoxville, Tennessee), the stores they served, and their viability to serve future store openings. Three conclusions came from this analysis. First, the Knoxville distribution center was redundant to the two larger centers from the combined company (South Hill, Virginia, and Jacksonville, Texas), and was not well-positioned to support future store growth in the Midwest. Serving the same number of stores with one less distribution center allowed a decrease in physical and working capital invested, with no negative impact on sales, resulting in more economic profit.

Operating Efficiencies

The South Hill distribution center moved approximately one-third as many products per year as the Jacksonville center, but at a cost of over \$2 million more per year. When this fact was presented to the board with a plan to bring the Virginia distribution center's costs in line with those of the Texas center, one of the financial analyst members of the board said, "That represents a 4 percent accretion to earnings." It was gratifying that the board was beginning to think like supply chain strategists. One of the finance members recognized the impact of supply chain management on earnings, economic profit, and shareholder value.

After the acquisition, SSI management embarked on a two-year project to bring the processes, technology, and training in South Hill up to the Jacksonville standards. The result was a Virginia distribution center that moved many more products at a considerably lower cost.

Redundant Transportation

Another supply chain insight was that Peebles transshipped product 1.86 million times per year. Transshipment occurred when Peebles received product at the distribution center and, for instance, shipped it to a Richmond, Virginia, store. If a customer walked into a Raleigh, North Carolina, store and wanted that product in the size and color that was at the Richmond store (but not in the Raleigh store), she was told to come back in two days to pick up the product. Peebles then transported the product from Richmond back to the distribution center, reloaded it on the truck to North Carolina, and shipped it to the store. This meant that a product that should have moved from the vendor to the distribution center to the store actually moved from the vendor to the distribution center, to the Virginia store, back to the distribution center, and finally to the North Carolina store. This was a costly way to move almost 2 million products, especially when you consider the fact that the customer might not return after waiting two days.

The logic at Peebles was, "Since we own a private trucking fleet of fifty tractor trailers and they are going to the stores anyway, the movements are free." But, of course, nothing is free. In fact, by bringing demand planning expertise and systems technology to Peebles, SSI cut the incidence of products going to the wrong store by over two-thirds in the first year. SSI also sold the private trucking fleet, which helped finance the purchase of Peebles and decreased the capital cost component in the economic profit formula. It also eliminated the need to manage and maintain a fifty-truck fleet. Through better demand planning, improving distribution center operations, closing a redundant center, and turning store delivery trucking into a variable cost instead of a capital expenditure, SSI saved enough money to pay for the acquisition in a short time (which protected that pristine balance sheet).

B.C. Moore was a small acquisition opportunity. Operating approximately eighty stores in a state where SSI had no presence (Georgia), B.C. Moore was a straightforward cash purchase. Again, supply chain due diligence led SSI to the conclusion that the Moore stores (which SSI would operate under the Peebles name) could be served by the recently redesigned South Hill distribution center, so SSI could close the Moore center. This meant increased revenue from the operation of the eighty stores, without the capital cost of an additional distribution center.

Finally, the purchase of these two companies markedly increased the amount of product SSI bought from vendors. This gave SSI the leverage with key vendors to implement additional win-win savings back up the supply chain.

Economic Profit

By paying attention to the supply chain impact on economic profit (revenue, operating costs, and capital), SSI has been well rewarded in terms of shareholder value. In 2001, its stock was trading at approximately \$10, on 20 million outstanding shares (for a shareholder value of \$200 million). Steady revenue and earnings growth on a tighter capital base translated into six years of positive economic profit. With two three-for-two stock splits over the six-year period, and a steady policy of shares repurchase, 2007 outstanding shares were 44.3 million, trading in January 2007 at around \$30 per share (for a shareholder value of \$1.329 billion). Looked at a different way, an investor who bought four shares of stock in July 2001 for \$40 would have seen it appreciate to nine shares worth \$270 in 2007, a 675 percent return over the six-year period! This return was due in no small part to methodically following the five steps toward supply chain excellence and driving economic profit through the supply chain.

What does the future hold? With the improvement in investor confidence, SSI has plans to drastically expand its store footprint, as well as open a new distribution center to support this expansion and constantly keep an eye on earnings and capital to drive economic profit.

^[2]This case was developed primarily from a July 2007 presentation by the CEO to investment analysts and conversations with SSI executives.

Conclusion

These two cases, a manufacturer and a retailer, demonstrate the power of building a strategy for supply chain excellence to drive economic profit and shareholder value. Such a strategy relies on the five steps covered in the preceding chapters. All are essential; none are optional. If you weave them all together in one integrated supply chain strategy, you will be well on the way to driving shareholder value with your supply chain.

ACTION STEPS

1. Build a supply chain strategy based on the five steps to supply chain excellence: focus on acquiring the right talent, implementing the right technology, collaborating internally and externally, and managing change initiatives with discipline.
2. Keep an eye on the impact of supply chain decisions on the economic profit components.
3. Reward personnel for improving the supply chain. Remember: what is measured gets rewarded and what is rewarded gets done.

4. Continually benchmark competition and best-in-class industries.