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keepingSCOR
Updating the Supply-Chain Council's implementation model.

A model of project management

by Peter Bolstorff

With a supply chain initiative headed toward disaster, a team finds success in a standardized model.

What is SCOR?

The **Supply Chain Operations Reference** model, developed by the Supply-Chain Council, provides a standard methodology for managing supply chain projects.

As a member of a newly formed corporate supply chain team, I was eager to accept the responsibility of reducing inventory across 25 business units. My colleagues were charged with other relevant tasks — things like decreasing cost, increasing service and implementing technology.

We eagerly raced off on our own paths, and soon, each of us was managing as many as 10 improvement projects at the same time. And we were all approaching the 25 business unit managers individually to request resources.

In charge of it all was my immediate supervisor, the vice president of administration. Six months into the project, at a quarterly review meeting, he found himself face-to-face with the CEO, and the review was not good.

The company was **failing to meet analyst expectations**, the CEO told him, and the executives running the various business units had nothing but complaints about the multiplicity of improvement projects they were being forced to fund.

Worse, instead of improving the use of working capital, the supply chain initiative had done just the opposite. **Sales were down**, inventory and receivables were up, and customer service was at an all-time low.

We were shaken; we had to find a better way to organize the supply chain team. We turned to SCOR, which helped to structure our work around the **varied operating strategies** of the 25 business units. And by showing us a better way to define our supply chains, it also reduced the number of improvement projects while increasing their impact and effectiveness.

Taking a few steps back

The SCOR model defines a supply chain as the integrated processes of **plan, source, make** and **deliver** — moving from a suppliers' supplier to a customers' customer. It includes physical material, transactions and demand management.

A supply chain can be organized around geography, customer segment, product family or some combination of the three.

Often, as was the case in our project, nobody sees the complexity of an enterprise's evolving supply chains until someone sits down to organize them. It's not uncommon for the first draft to contain dozens of seemingly unique supply chains.

Where I was working, the business sold five consumer products into three customer segments — retail, distributor and OEM in the United States and Europe. We came up with **75 different supply chains** based on geography, products

SCORcard metrics

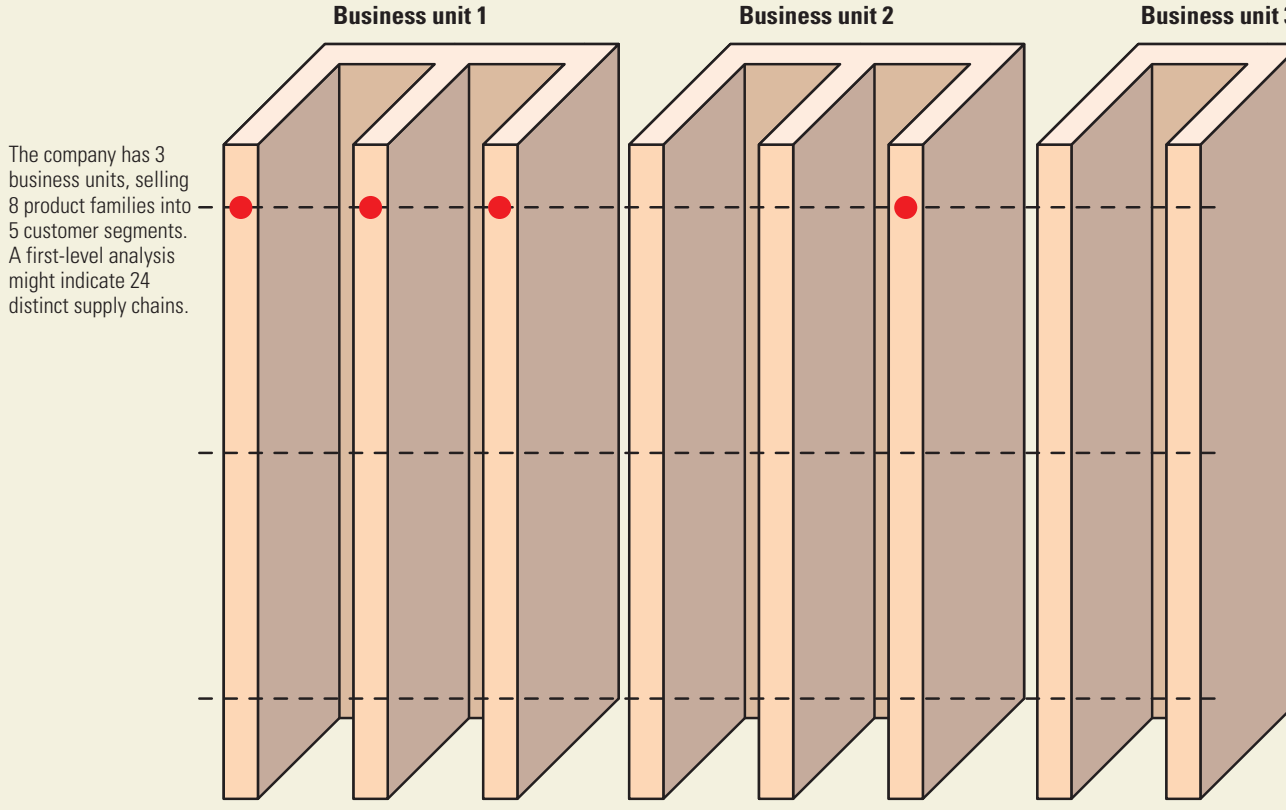
Under SCOR, the following measurements of supply chain improvement are prioritized by each business unit, assuring that the project serves a strategic interest for everyone involved:

- **Service/delivery:** How well is the business unit performing to customer order requirements, on time and in full?
- **Lead-time/responsiveness:** What is the business unit's lead time and how flexible is it in reacting to customers' demands?
- **Cost:** What is the business unit's cost structure for supply chain process in terms of planning, sourcing and delivering?
- **Asset utilization:** How well does the business unit use its cash, including accounts receivable, inventory and accounts payable?

SCM project matrix, before and after SCOR, for Hypothetical Inc.

Hypothetical Inc. is a fictitious company that produces flexible fittings for the automotive and aerospace industries. Automotive customers are OEMs, aftermarket repair/replacement, consumer retail. Aerospace customers are OEMs, aftermarket maintenance.

Before SCOR: Product perspective



Customer base	Trim	Moldings	Interior Decorations	Hoses	Tubes	Connectors	Gaskets	Rubber Seals
Auto OEM	✔	✔	✔	✔	✔	✔	✔	✔
Auto aftermkt.	✔	✔	✔	✔	✔	✔	✔	✔
Auto retail			✔	✔	✔	✔		
Aerospace OEM							✔	✔
Aero. aftermkt.							✔	✔

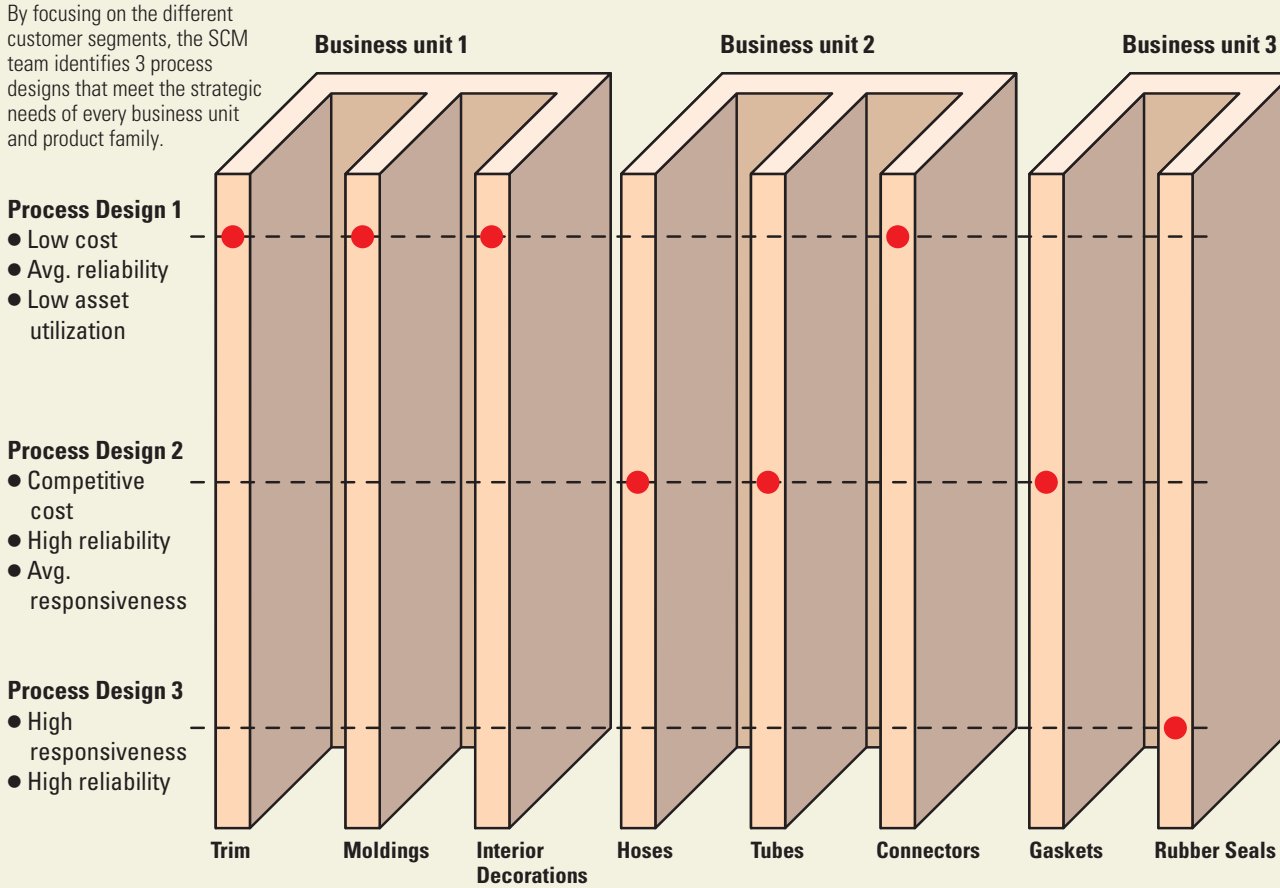
The right team structure

By prodding team members to see how different initiatives work together in a single project, SCOR imposes a matrix structure on project teams that:

- Minimizes resource impact on the business unit. In practice, there are fewer people doing bigger projects, resulting in a greater impact.
- Maximizes opportunity for common enterprise-wide solutions, such as e-commerce, vendor-managed inventory and forecasting.
- Provides a balanced implementation approach between the business unit and corporate players. Ultimately, business unit managers take ownership of improvement projects and align them with business strategy.

After SCOR: Process perspective

By focusing on the different customer segments, the SCM team identifies 3 process designs that meet the strategic needs of every business unit and product family.



Definitions

Business Unit: Defined by P&L/Balance Sheet
Supply Chain: Defined by geography, product family and customer channel
SCOR Process Design: Defined by configuration of material, work and information flow with SCOR's *plan, source, make* and *deliver* framework.

Learning Points

- Process designs typically evolve within the business unit as "one size fits all" — administratively convenient, but not necessarily customer focused or efficient.
- When viewed based on process and customer needs, many supply chains — even across business boundaries — utilize the same process designs.
- SCOR's matrix helps teams develop a single process design with impact on multiple supply chains.
- Multiple process designs offer each business unit a menu of options for taking products to market.
- The performance of each process design can be measured using a balanced *SCORcard* that considers reliability, responsiveness, cost and asset utilization. These metrics can be linked directly to the P&L and balance sheet of each business unit.

and customers.

We found that leading companies were defining their supply chains more in the context of their customer segments than by how they organized their products. While this is more complex, it helps focus supply chain improvement on the competitive strategy of each business unit.

Before you improve, simplify

How a supply chain *plans*, *sources*, *makes* and *delivers* is based on process configurations at two levels: **material flow** and **work/information flow**.

As we looked at our 75 supply chains from that perspective, we found that they weren't as distinct as we had first thought. In fact, every one of them could fit into one of five process configurations.

This was an important discovery for us, because the process configuration level defined the scope of our projects. Suddenly, we were dealing with **five supply chains, not 75**.

The next step was to come up with some apples-for-apples metrics that would help us measure the success of our efforts across all of those supply chains. Again, the SCOR model helped, providing four measures of supply chain success:

1. **Service**
2. **Cost**
3. **Responsiveness**
4. **Asset utilization.**

It transformed the group from a bunch of individuals chasing multiple projects in multiple businesses to a team with a single goal: balancing process (*plan*, *source*, *make* and *deliver*) with business (*product* and *customer*).

Technology as a tool

Many supply chain projects get into trouble because their improvements rely on successful implementation of technology. We found that the SCOR design process addressed technology, but more important it addressed organization and process. As a result, when we started to identify and prioritize opportunities for improvement, 15 out of the total 25 could have helped performance **without any technology changes**. After just three months of planning, we were ready to begin implementing.

First, each of the 25 business unit managers needed a way to answer the simple question: "How are we doing?" This was especially important in light of the blistering reviews our first effort had earned from these same managers.

Using the four measures mentioned above, we allowed each business unit to define its priorities, and used that to develop a balanced *SCORcard* (see box) of supply chain performance, linked to the P&L statement. In other words, it forced supply chain improvements to be viewed for their bottom-line impact.

Based on that experience and others that I've seen, the SCOR model can be an invaluable **project-management tool**, turning a collection of disconnected activities into a strategic tool for driving competitive advantage.

There is, of course, a happy post-script to the story. The first project our team completed helped the company avoid a $2 million inventory investment by using a new process configuration as part of a national product launch.

At the next review, the CEO was much happier.

About SCOR

The Supply Chain Operations Reference model (SCOR) has been developed by the Supply-Chain Council and is *SCTN*'s recommended implementation model for SCM initiatives. While the author of this article is affiliated with the Supply-Chain Council, this article was prepared under the direction of *SCTN* and was not subject to prior review or approval by the Supply-Chain Council or any of its members/affiliates.

To learn more about the Supply-Chain Council:
www.supply-chain.org

For basic information about SCOR:
www.supply-chain.org/html/scor_overview.cfm

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