

Supply Chain Management for Dummies

by Peter Bolstorff

Wouldn't it be nice if there was some kind of instruction book on how to optimize your supply chain? There is.



Of all the conferences, trade show seminars and individual coaching sessions at which I've had the opportunity to discuss the SCOR model, none has been more profoundly rewarding than a workshop for 15 members of the *Japanese ERP Consortium*. It was an intensive lecture and interactive discussion conducted with simultaneous translation.

By its conclusion, I walked away with two major "a-ha's" about supply chain management as a [strategy for competing](#) in a world economy and the SCOR model as a [reliable roadmap](#) for driving a world-class organization.

A-ha #1: Education is essential to any successful supply chain project. It's a complex subject — more than just transportation and logistics. It demands a heightened understanding of the organizational benefits — in terms of finance, customers and employees. Resources are one of the biggest issues. Executives who understand the payback of supply chain projects will more likely fund and sponsor them. Once supply chain projects reap savings, the projects pay for themselves.

A-ha #2: The SCOR model is a global methodology, understandable in any language. No matter what your company produces, executives everywhere are asking the same basic questions about SCOR: What is it? What is its value? How is it used? Who is using it? How can my organization get started? The answers are the same in any language, as my Japanese friends concurred.

What is the SCOR Model?

SCOR is a process reference model that was developed and endorsed by the Supply-Chain Council as the cross-industry standard for

supply chain management. The Council began in 1996 as an unincorporated activity initiated by *Pittiglio, Rabin, Todd, & McGrath* (PRTM), with support from *AMR Research Inc.* Approximately 70 of the world's leading manufacturing companies were represented in SCOR's development.

SCOR provided a glossary of **definitions, metrics and process elements**. It defined a supply chain as: *The integrated processes of Plan, Source, Make and Deliver, spanning your suppliers' supplier to your customers' customer, aligned with operational strategy, material, work and information flows.*

The public application of this model came later, in the form of the **SCOR Project Roadmap** that provided a scope for each of the four process elements:

Plan: Demand/supply planning elements of supply resources, demand requirements, plan inventory, distribution requirements, production, material and rough-cut capacity for all products and all channels.

Source: Sourcing infrastructure and material acquisition.

Make: Production and execution elements.

Deliver: Order management, warehouse management and transportation/installation components.

The **roadmap** is divided into four segments:

Analyze your basis of competition, which focuses on operations strategy.

Configure your supply chain material flow.

Align performance levels, practices and systems of your information workflow.

Implement the supply chain changes based on the design.

What is the value of SCOR to a business?

As a process reference model, SCOR combines the well-known concepts of business process reengineering with benchmarking, best practices and process measurement into a "one-stop shopping" framework for executing a supply chain project. It is a reliable methodology with **predictable cost/benefits** such as:

- Two- to six-times ROI within 12 months;
- Full leverage of capital investment in systems;
- Creation of an e-investment roadmap;
- Alignment of business requirements with central functions; and
- Self-funding of technology investments.

How is SCOR used to improve supply chain performance?

From the context of a project approach, I have found that SCOR is most successful when solid project management is combined with technology expertise for implementation in the following six steps (see [Figure 1](#)):

Step 1: Educate for Support

Find an "evangelist" within the company who has the passion to lead a supply chain project, and an executive to actively sponsor it. Both must be willing to invest personal time to learn the SCOR model. If an executive delegates this initial learning, there's a potential risk that the organization won't be able to sustain change over time.

Then, establish a core business team to buy into the idea that it can add value to the organization and learn the model. Knowledge of the model is essential for weaving it into the business.

Step 2: Discover the Opportunity

Discovery helps to form the business case that justifies a supply chain project expenditure. It's where the business team sorts out performance opportunities, including the use and functionality of the organization's current technology. It's common to find a major **under-utilization of technology** capacity at this point.

The complexity of supply chain discovery can be best visualized as a three-dimensional box of questions. The first dimension asks: At what performance level is your supply chain operating? One answer — if there are too many irons in the fire and costs are running at an all-time high — would be **deficient**.

Or it might be operating at the **continuous improvement** level, where you've reached parity today but want to maintain or improve it. Or, from a strategic standpoint, you might plan to invest in supply chain as a core competency to differentiate the organization from its competitors. ROI and expenditure expectations will differ at each of these performance levels.

The second dimension asks: Do we have the right strategy, as well as the right work, information and material flows to support the desired performance level?

And the third dimension asks: What other performance factors will impact your supply chain? These include organizational, process and technology issues, in addition to

What is SCOR?

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

Who is using SCOR?

The *Supply-Chain Council* has 750 member companies, many of which are using the model and starting to tell their stories at Council conferences. Earlier this year, several case studies were presented including *Gold'n Plump Poultry* and *Imation*.

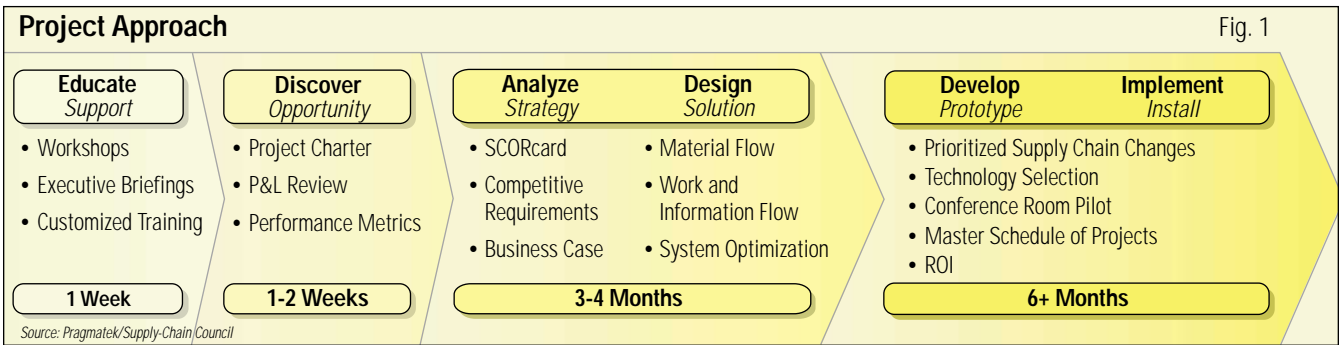


Fig. 1

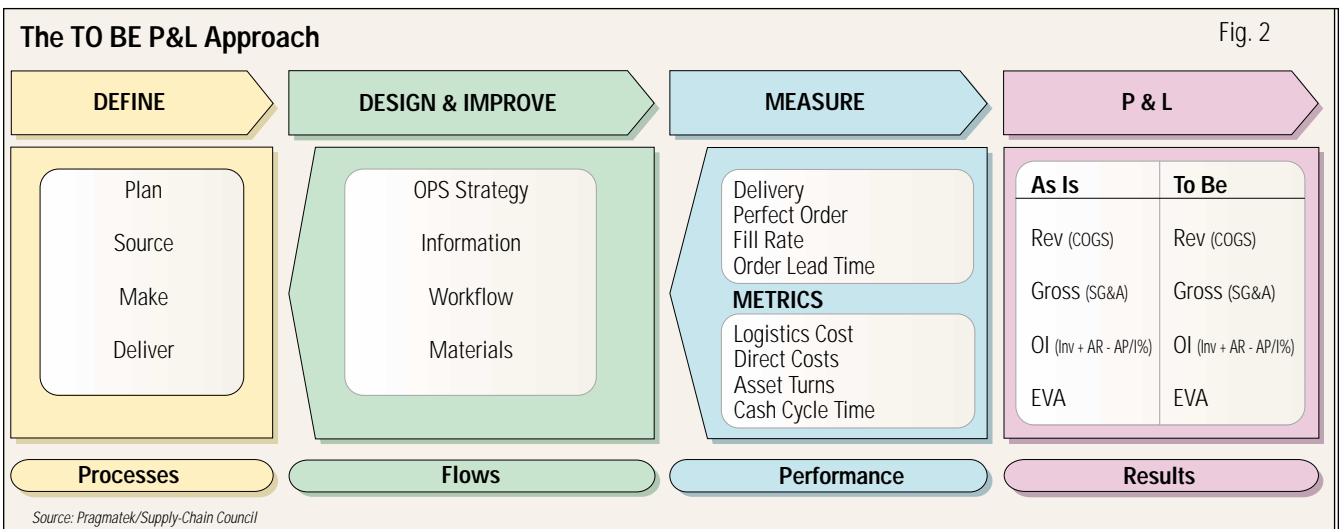


Fig. 2

COGS cost of goods sold **SG&A** sales, general & admin. (indirect spending) **OI** operating income
Inv + AR inventory plus accounts receivable **EVA** economic value add

Getting started with SCOR?

I've seen companies invest three to five weeks for the education, discovery and analysis steps, which produce a business case that can be funded. The design effort and technology selection can take a couple months, and implementation can generally begin within three to four months. But the starting point is a good understanding of SCOR. Look for general SCOR workshops by logging onto the Supply-Chain Council web site or through various executive briefings.

understanding people-related factors such as skill, knowledge and ability.

One of the key outcomes from the discovery step is a **project charter**, which organizes the supply chain opportunity into the approach, budget, organization, clear measures of successes, and communication plan.

Step 3: Analyze

Business team ownership is an important factor as the opportunity is defined according to the profit & loss (P&L) statement. It's where the value proposition is articulated in terms of cash-to-cash cycle time, inventory days, order fulfillment and other performance factors. SCOR's **Level 1 metrics** help the team to prioritize and balance customer metrics with internal-facing metrics: delivery, reliability, flexibility/responsiveness, cost and assets. The resulting **SCORcard** provides a "hot link" to the balance sheet.

Performance requirements — with respect to your competition — are prioritized by supply chain (product and channel), with one chip for "superior," one chip for "advantage,"

and two chips for "parity." This prioritization avoids the tendency of choosing "superior" in every category, which aids the design step. The SCORcard also summarizes actual performance against benchmark performance with a gap analysis that defines the value of improvements.

Step 4: Design

Material flow and work/information flow are the two key components for defining **As Is** flows, uncovering disconnects in your processes, and mapping out **To Be** flows that eliminate these gaps.

Here are some questions you'll ask:

What are my material flow problems and what's it worth to solve them? You look at the material flow based on part-number routes between your internal and external physical locations, and identify the types of processes by location. The **disconnects in material flow** define your ROI commitment.

How does work and information flow impact material flow? You define the work first and then the information that moves the

material, including the major system applications and transactions.

A revised “disconnect” analysis looks at productivity and quality measures and points to new technology that supports best practices such as ways to impact e-business.

Step 5: Develop

At this point, the design team becomes an implementation team with individual task details assigned. A prototype of your final integrated solution is created as a “conference room pilot” before making changes as the team leaps from **As Is** to the **To Be** scenario (see Figure 2).

Each change is balanced against quick hits and non-technology changes with longer payback projects. A formal technology selection process is based on your **To Be** work and information flow. The result is a master schedule of projects with

project manager, timeline, milestones, technology selection and detailed design for each change.

Step 6: Implement

Based on the master schedule for each change, you prepare and transition the organization for that change as you move through an installation phase. Once the pilot is successful, then cutting over the rest of organization takes place. A stabilization period ensures that the change can be sustained.

The process can be technical, and it may seem to take a long time. But its strength is the way it helps companies identify the right projects to work on, how to get them done and then to measure the success.

Which is just about all you could ask for if the model had been published as *Supply Chain Management for Dummies*. ◀



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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.

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