How Should We Define “SCM”? 

Applies to: 
Supply Chain Management, Supplier Relationship Management, Product Lifecycle Management, Customer Relationship Management

Summary
Supply chains are constantly evolving. The good news is that today it is viewed as a critical capability to business success and has earned its place on the CEO agenda. The bad news is that there is no consistent definition of Supply Chain Management (SCM). Here we revisit the original mission of SCM and make a case why the end-to-end view of the supply chain is important to continue that mission. In support of this, we introduce what an end-to-end supply chain framework could look like.

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Introduction

How should we define “SCM”? This basic question is worth debating because supply chains are constantly evolving. When we compare our current understanding of SCM to the early nineties (when companies first created an executive position to align the forecasting, distribution, and manufacturing processes), we see that a lot has changed since then. Similarly, it is very likely that our thinking will evolve as much over the next ten years.

My colleagues and I who sit on the advisory board of the Center for Intelligent Supply Networks (C4ISN) at the University of Texas at Dallas (UTD) spend a lot of time thinking about this because ten years isn’t a very long time (especially in the academic world). Given the dynamic nature of supply chains, the Center’s challenge was to provide students with a core foundation of knowledge that would not change despite living in a world that appeared to be constantly changing.

Since the early nineties, supply chains have gained prominence on the CEO agenda and career opportunities are increasing. Looking ahead, our goal was to train SCM professionals so they continue to make valuable contributions – and stay relevant to the CEO agenda regardless of whether the “SCM” label survives or gets replaced by a new TLA (three-letter-acronym.) This leads us to the next question...

What’s the supply chain journey really about?

In essence, it’s about “breaking down the walls.” At least, that’s our opinion. We believe this is job #1 for a supply chain professional. And it seems to be the only thing we can agree on because there is no CONSISTENT understanding or definition of “supply chain” out there.

This is what we see: Most of today’s supply chain professionals pretty much learn “on the job” what isn’t taught at school. While professional organizations are doing their part to fill the knowledge gap, they too are evolving – the National Association of Purchasing Managers (NAPM) became the Institute of Supply Management; and the Council of Logistics Management (CLM) became the Council of Supply Chain Management Professionals (CSCMP) – yet their focus (understandably) is still from a functional perspective given their roots and/or membership needs. Adding to the challenge, supply chains themselves have been undergoing structural changes due to globalization.

In coming up with a suitable framework, we wanted to be true to the original premise of “breaking down the walls” and not end up inadvertently “rearranging the walls” because this was what helped put SCM on the CEO agenda in the first place. Thus we concluded that for SCM to continue its original mission and remain relevant in the future, it must focus on breaking down the walls across the end-to-end supply chain.

This leads us to the next question...

What are the core processes in the end-to-end supply chain?

To help students understand how a business (i.e., the “money machine”) operates, the Center developed a simple framework to “connect the dots” across the end-to-end supply chain, shown below:
This picture shows how a CEO might view the supply chain. Our goal was to ensure that our students can ultimately relate to the bigger picture around creating value for the enterprise, and not get mired in debates over supply chains vs. demand chains vs. product chains, etc. What was important was to have a “no walls” view of the business and understand how it actually makes money. Over the past three years, we have validated this framework across multiple industries and feel confident that it is robust enough to represent the end-to-end supply chain (from Henry Ford’s time and well into the future.)

We use this framework to make a few fundamental points about the supply chain:

**Customer (the “why”):**

*It all begins with the customer.* It sounds rather obvious, but this point is often lost across the departmental silos within an enterprise – and likely to occur more often as the supply chain becomes more fragmented across multiple enterprises.

*So which customer are we talking about?* While we have the immediate customer as well as the end-consumer, it should ALWAYS be about the end-consumer because they are why supply chains exist in the first place. They are the ultimate source of demand and everyone along the supply chain is directly or indirectly involved in fulfilling that request.

Every CEO knows the value and importance of understanding the end-consumer because they dictate current and future strategy around which products to build, assets to own, and the markets and customer segments to fulfill – regardless of a company’s position along the end-to-end supply chain.

*Takeaway: In Supply Chain 101, we learn about the bullwhip effect. Thinking end-to-end forces you to think about the true source of demand, your position in relation to the end-consumer, and how you are minimizing the bullwhip effect.*

**Product (the “what”):**

Now let’s now focus on what your customers REALLY care about -- your product(s). Here’s an interesting statistic to think about: If the average product lifecycle shrinks by 10% each year, then a company must double its rate of innovation every 7 years (or faster in order to grow.) Given today’s product obsolescence trends, it comes as no surprise that innovation is at the top of the CEO agenda.

But to meet these mandates on innovation, time-to-market, and profitability requires engineering and supply chain functions to break down the walls that currently exist between them. For many, these functions are still worlds apart where engineering speaks “product”, logistics speaks “inventory”, and sales speaks “orders.” This misalignment results in “profit leaks” throughout the end-to-end supply chain as illustrated below:

The more we thought about this picture, the more we realized that many of these “leaks” cannot be “plugged” without cross-functional coordination, i.e., breaking down the walls. On the flip side, these “leaks” also
represent huge opportunities for both PRODUCT and PROCESS innovation. We are just scratching the surface when it comes to topics like part reusability, design for manufacturability, design for postponement, design for recycling, etc. These opportunities for “better, faster, cheaper” cannot be exploited without the end-to-end perspective. (In recognition of this fact, starting this year the School of Management at UTD decided to offer an MBA degree that combines the SCM, PLM, and Lean/Six Sigma curriculums into a single program.)

Takeaway: Thinking end-to-end increases the opportunity for innovation by eliminating the blind spots between the organizational silos. And it shows that everyone has a stake in achieving the lifetime revenue and margin objectives of your products and not just product managers.

Process (the “how”):

Let’s dig a little deeper into the Center’s framework for showing the end-to-end supply chain processes as depicted in the following graphic:

Whether it’s the supply chain of a street vendor selling hot dogs or a global multinational enterprise, the seven core processes (Design – Source – Make – Move – Store – Sell – Service) shown above are critical to fulfilling the customer request.

The term “management” means that there are decisions associated with the above processes, and these decisions are grouped along three phases (Strategic – Tactical – Execution.) As the terms imply, the decision phases are hierarchical and relate to the timeframe over which the decisions are made.

By showing a common set of support functions (finance, people, IT) going across the core supply chain processes, we have avoided the challenge of trying to draw boundaries around application spaces like ERP, PLM, SRM, SCM, CRM, etc., since they tend to be technology-oriented views. (I’m not saying these designations aren’t important – just that we chose to remain agnostic to concepts that were open to interpretation.)

Takeaway: Think of this 7x3 framework as the process transformation “pipe” that delivers your products to your customers – and now look for the process constraints to your cost, quality, and time (speed) objectives. That’s where your energies and your constrained IT dollars are needed the most.
People/Partners (the “who”):

A quick recap helps to set up this section: Customers are constantly demanding better, faster, cheaper…which in turn is increasing product complexity…which in turn is adding to supply chain complexity. To deal with this, companies have been moving away from vertical integration to a virtual model as a means to achieve flexibility and responsiveness. As more functions are outsourced to a network of partners who have core competencies in specific areas, the need for visibility and shared control across the supply chain has meant that many of these processes are now collaborative.

It’s hard to go it alone – especially in industries where the level of complexity and the rate of change are increasing. Already, product lifecycles are shrinking faster than the lifecycles of the assets used to produce them. This disconnect in obsolescence rates will only result in increased virtualization as the enterprise has little choice but to decouple itself of the assets that prevent it from being adaptive.

For example, the graphic below shows how the core processes of a hypothetical High Tech OEM would look like:

In the above example, we show three processes that can be considered strictly internal or confined “within the four walls”: (1) the product portfolio strategy, (2) the sourcing strategy, and (3) the customer strategy. Every other process is collaborative to varying degrees ranging from shared control to fully-outsourced.

There are many other trends driving this fragmentation or “virtualization” of the enterprise, and it’s not difficult to imagine such a highly dynamic structure becoming more pervasive ten years from now.

Takeaway: The end-to-end perspective reframes SCM context from the enterprise to the larger ecosystem. And the “Network SCM” phase promises to be at least as exciting as the journey thus far (if not more turbulent).

In closing…

What we hope to achieve through the Center is to help participating companies and enrolled students think about SCM as a journey and as opposed to a static label. Sometimes these labels obstruct our thinking and
our ability to relate to the bigger picture that the CEO needs us to see. The CEO needs CRM to think beyond a customer-facing function and be integrated to the upstream supply chain. They need their SCM professionals to think about customer's customer and the larger demand management picture. Because product lifecycles are shrinking, they need their PLM professionals to understand the impact of trends and future needs to have the right products at the right time. And they need their SRM professionals to have a sourcing strategy that is aligned with all the above via the right supply network.

I believe Peter Senge, the author of The Fifth Discipline, said it best:

_From a very early age, we are taught to break apart problems, to fragment the world. This apparently makes complex tasks and subjects more manageable, but we pay a hidden, enormous price. We can no longer see the consequences of our actions; we lose our intrinsic sense of connection to a larger whole. When we then try to "see the big picture," we try to reassemble the fragments in our minds, to list and organize all the pieces. But, as physicist David Bohm says, the task is futile--similar to trying to reassemble the fragments of a broken mirror to see a true reflection. Thus, after a while we give up trying to see the whole altogether._

Ultimately, this is the challenge SCM professionals have to step up to. And this job isn’t going away anytime soon.
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