



SERVICES MEASURES IN AN INTEGRATED SUPPLY CHAIN

TURNING A POINT OF CONTENTION INTO A LEVER FOR SUCCESS

By IMD Professor Ralf Seifert and Richard Markoff

IMD
Chemin de Bellerive 23
PO Box 915,
CH-1001 Lausanne
Switzerland

Tel: +41 21 618 01 11
Fax: +41 21 618 07 07
info@imd.org
www.imd.org

Service level: it should be the clearest and most impactful KPI (key performance indicator) in any supply chain, capturing the ability of the supply chain to meet the company's ability to satisfy their customers' expectations. For many companies it is considered the ultimate performance measure and every other KPI – such as cost, inventory level or forecast accuracy – is either derivative, secondary or simply a means to the end of high service levels.

A closer look at this KPI reveals that calculating it and managing around it come with challenges, but nonetheless it can be a lever to improving the customer orientation in a supply chain organization.

More than meets the eye

The notion of service level has evolved over time for many companies. At its most basic, service level measures try to answer the question, 'Did we ship the order on time?' The debates within companies tended to revolve around details such as whether the measure should be by order line item or for order header.

Some companies would go further and look at the non-serviced volume in the order, in an effort to appreciate the extent of the service disruption. But the curious dynamics of service measures can lead to complications. Imagine a customer that orders 10 units three times a week, where the customer uses the common 'fill-or-kill' policy of cancelling non-serviced orders. If the customer's order of 10 units on Monday is not fulfilled, the order on Wednesday will not be for 10 units, it will be for 20 units: the 10 units for Wednesday plus the 10 units that were ordered on Monday and not shipped. If the stockout persists until Friday, then the customer will not order 10 units as usual, they will order 30 units: the 10 units for Wednesday plus the 10 units not shipped on both Monday and Wednesday. A weeklong stock that should have impacted service levels by 30 units in fact resulted in an impact of 60 units of unfilled orders. The service level impact has been artificially doubled!

One global consumer goods company supply chain executive shared how a Class C SKU (stock keeping unit), a slow mover, was out of stock for three weeks and this dynamic of cumulative ordering managed to drag down his service level and raise alarms across the company. The service performance as expressed by the measure was so severe that he even had to explain to the highest levels of management that the service KPI they were seeing was not reflective of a serious problem.

There can be operational impacts as well. “I began to push for us to implement VMI [vendor managed inventory] with our key accounts,” he explained, “but not out of a noble desire to move our supply chain forward with best practices. It was because I wanted to exert some control on the order behavior when products were out of stock.”

The supply chain executive explained how some supply chain managers respond to these misleading results by removing orders for SKUs that are out of stock after the first order. In other words, after the customer has ordered the SKU once and not been satisfied, the SKU no longer impacts the service level KPI. The practice became so pervasive that it began to hide serious service issues, and the CEO of the company accused the entire supply chain management of bad faith and of attempting to hide its poor performance.

Another major consumer goods company attempted to resolve these issues by not integrating the escalating customer orders, but rather asked the commercial teams to enter into the company ERP ‘phantom orders’ that represented typical customer ordering patterns. Not surprisingly, this effort was not successful, since asking commercial teams to invest effort in keying in data to arrive at a robust KPI for a situation they find fundamentally frustrating is not a firm foundation on which to rely upon for accurate service measures.

One company told us how commercial teams would be reticent to inform customers of product discontinuations in order to delay product returns as long as possible. The result was that a customer, unaware that the product was no longer available, would

continue ordering it and not be served, and the service level KPI became deeply corrupted in consequence.

The result of all of these dynamics is a KPI that does not drive behavior towards customer satisfaction, rather one that creates counter-productive internal friction and misunderstanding. But it can also set the stage for a company to resolve these issues by focusing more on customer expectations.

Service level as a business lever

The advent of EDI and then TMS has allowed companies to think about service in more expansive terms. Rather than limiting service measure to the notion of whether an order respected its ship date and volume, companies can now more easily measure when the order arrived to the customer, which is of course more meaningful for the perception of service. This step towards a more customer-centric approach has led to the advent of the perfect order: the idea that an order that contains all that was ordered, arrives on time and has no damages is a more enlightened service measure. Indeed, it is the [KPI often used by Gartner](#) when discussing service level.

In a previous Tomorrow's Challenges we discussed [On-Shelf Availability \(OSA\)](#), the difficulties in capturing it accurately, and its importance in successful omni-channel implementation. OSA itself is an effort to overcome the limitations of a service level KPI that narrowly attempts to capture the performance of just one link in the supply chain.

The idea that both a manufacturer and retailer would collaborate on a shared KPI is far from universally accepted. For those companies that have embraced a shared vision of the service goals of a supply chain, the natural evolution is a spirit of collaboration for the benefit of all supply chain actors. Rather than being a point of contention, the service KPI becomes a lever for an integrated supply chain and deeper best practices for mutual benefit.

An illustrative example is one consumer goods company that began collaborating with a key retail customer by using Point-of-Sale (POS) scan data to measure OSA. This led the manufacturer to expand the use of POS data to examine the supply chain performance of key product launches. The manufacturer discovered that there could be a gap of as much as 30 days between the *first store* to sell at least one unit of the new product and *all stores* reporting at least one unit sold. This was despite the retailer insisting that each store, at least per their IT system, had the product launch in stock at the same time. Because of the constructive, collaborative notion of service that had been fostered, the retailer was open to digging into the problem and discovered that many stores were not getting the launch products out of the back room and out on to the shelves in a timely manner. The very last 10 meters were undermining months of effort by all parties to execute a successful product launch, and the key to identifying the problem was a collaborative spirit around service. The willingness of both supply chains to collaborate together and move past siloed notions of service level led directly to higher turnover, more successful launches and in fact deepened the commercial relationship.

Looking back to the examples we cited of service level distortions, the internal frustrations around service level measures drove these companies to implement VMI and improve customer-supplier catalogue synchronization, both valuable customer-oriented supply chain initiatives.

Next-stage service

As companies move deeper into the 'Age of the Consumer,' the role and objective of KPIs like service could benefit from a rethinking. Deepening a mutual collaboration around service objectives can help create a context for leveraging [cost-to-serve analyses](#), another topic covered in a previous Tomorrow's Challenge. Cost-to-serve techniques can help both the supplier and customer understand all of the aspects of supply chain service such order parameters and lead time and make informed trade-offs between cost and service.

These trade-offs are valid for all supply chain configurations, not only in retail distribution. In e-commerce each company must make choices about lead-time and transportation charges. And for [project supply chains](#), a more holistic view of service would include setting objective or expectations of customer order lead-time and incorporate them into the company's differentiation strategy.

Looking at service measure as a key element in the business strategy of market positioning, segmentation and cost structure can turn a point of contention into a lever for supply chain contribution to success.

[Ralf Seifert](#) is Professor of Operations Management at IMD. He directs IMD's new [Digital Supply Chain Management](#) program, which addresses both traditional supply chain strategy and implementation issues as well as digitalization trends and new technologies.

Richard Markoff is a supply chain researcher, consultant, coach and lecturer. He has worked in supply chain for L'Oréal for 22 years, in Canada, the US and France, spanning the entire value chain from manufacturing to customer collaboration.