



Managing BPM

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The IT Supply-Chain SCORcard

Following last month's article in IT Supply-Chain identification, I want to discuss this month how to set up an IT SCORcard for benchmarking and alignment of performance to company strategy. This is part of a four-article series on applying SCOR®-based BPM techniques to the IT Supply-Chain, which will conclude with initial mapping of work, material, and information flows in the IT supply-chain.

First, let's look at an ordinary SCORcard:

Attribute	Metric	Company	Parity	Advantage	Superior	Parity Gap	Competitive Gap
Reliability	Perfect Order Fulfillment						
Responsiveness	Order Fulfillment Cycle Time						
Flexibility	Upside Supply-Chain Flexibility						
Cost	Supply-Chain Management Cost						
Assets	Return on Fixed Assets						

The metrics I've chosen (just five here) are from the 250+ metrics in the SCOR® reference guide, and are considered "Level 1" Metrics, or the highest aggregation of sub-metrics you can choose. Generally, we would expect organizations to select between 10-40 metrics for SCORcarding themselves. Organizations new to SCORcarding generally choose far too many metrics, without realizing how complex and difficult it can be to get data. Mature organizations generally focus on a small set of metrics which have a 1:1 correspondence to what their customers expect.

Without going into elaborate detail on their definition, here's a basic working view of what the metrics I've highlighted mean within an IT supply-chain:

Perfect Order Fulfillment: Number of IT Service events delivered on-time to customer request, complete, with complete documentation and no defects. An IT Service event can be anything from delivering a desktop automation environment to delivering a transaction in an SAP environment.

Order Fulfillment Cycle Time: Total elapsed time from the request of an IT Service event to the final acceptance of that service event by the customer. An example might be the reciprocal of the number of transactions processed in unit time for a transaction processing IT service environment, or the time required to provision a server in a data center.

Upside Supply-Chain Flexibility: Number of days required for an IT organization to achieve an unplanned sustainable 20% increase in IT service events. This is a very interesting metric – the notorious "Flexibility" or "Agility" metric in IT approached from a very concrete Supply-Chain view.

For example, how long would it take to increase the number of EDI transactions by a sustained 20% with no other performance changing. Typically, it's the time it takes to provision additional processing power or similar hardware.

Supply-Chain Management Cost: Total cost of IT infrastructure for planning, sourcing, delivering, and repairing IT service events, not including the cost of executing the event itself. For IT events that have a variable cost – deploying a PeopleSoft configuration is very dependent on the complexity of the configuration – this calculation ensures that we only look at the total execution of IT Events, and not at the complexity of the event itself which has its own cost (or size) parameters. These parameters would be considered “cost of goods sold.” It's the cost to maintain a department/team that is performing zero events. For IT events which approach zero cost – adding storage today costs fractions of a cent per byte – this accounts for the vast infrastructure which must be in place in advance of an additional byte of storage allocated. This cost is usually expressed as a % of revenue.

Return on Fixed Assets: Total revenue flowing through an IT Supply Chain less Cost to perform service events, less Supply-Chain Management cost, divided by total IT assets within the IT Supply-Chain. This is the second notorious IT metric – “ROIT,” interpreted as a Supply-Chain metric. Take total revenue flowing through a particular IT supply-chain - say, all the sales transactions logged into Siebel in a particular time period (say, one year). Subtract the total IT Supply-Chain Management cost (see above) and, as well, the cost of performing transactions (generally approaches zero for a transaction-based system). Divide what's left by the total assets – the network, hardware, software investments, total team investment over time... and you get ROIT.

Now fill in your company's numbers; for example, let's consider an IT supply-chain that provisions hardware.

Attribute	Metric	Company	Parity	Advantage	Superior	Parity Gap	Competitive Gap
Reliability	Perfect Order Fulfillment	98%					
Responsiveness	Order Fulfillment Cycle Time	3 days					
Flexibility	Upside Supply-Chain Flexibility	62 days					
Cost	Supply-Chain Management Cost	2.1%					
Assets	Return on Fixed Assets	89%					

Next we apply benchmark data. For SCOR there are a number of suppliers of benchmark information, which are highlighted in SCOR training. Contact me for a summary list of providers (contact at end of article). Some data may have to be “interpreted” back to SCOR data in time, as more IT Supply-Chain organizations use this approach, a richer and richer set of benchmark data will be available.

For “Parity,” we generally choose the median value of a set of benchmark data. This means that exactly half of the data population will be below this point, and half will be above, or, more specifically, if you are at parity, half your competition performs worse, half performs better. Had we chosen average, an unpredictable number of competitors in the benchmark may be better or worse.

For Superior, we choose the 90% percentile value of a set of data. If we are at Superior in performance, we may not be the #1 company, but we know that virtually all competitors will be worse in performance, and we'll be in the top-few.

For Advantage, we choose the midpoint of Advantage and Parity. Not in the top, and not in the middle. You may choose different setpoints for Parity, Advantage, and Superior – it's all in the art of the benchmark.

Let's fill in more data now and go ahead and fill in the Parity Gap.

Attribute	Metric	Company	Parity	Advantage	Superior	Parity Gap	Competitive Gap
Reliability	Perfect Order Fulfillment	98%	92%	96%	98%	-6%	
Responsiveness	Order Fulfillment Cycle Time	14 days	8 days	6days	4 days	6 days	
Flexibility	Upside Supply-Chain Flexibility	62 days	80 days	62 days	40 days	-18 days	
Cost	Supply-Chain Management Cost	2.1%	2.8%	2.4%	2.2%	-0.7%	
Assets	Return on Fixed Assets	289%	100%	150%	200%	-189%	

This IT supply-chain performs relatively well. In 4 out of 5 metrics, the Parity Gap is negative, meaning the IT supply-chain performs better than at least half the competition in the benchmark data. However, in one metric – responsiveness – the IT Supply-Chain performs quite a bit below parity. They're in the bottom half of responsiveness.

So, having gone this far, I'll give the last part of the equation – how to derive the competitive gap, but, first, you have to answer some key questions.

What does your IT Customer demand of this supply chain? Perfect reliability? Great responsiveness? High flexibility? In companies where you hear “we could get more done but IT is an impediment, it takes too long...” well, the priority is clearly here on responsiveness. In companies where there are continual budget struggles over IT, then cost is a clear priority. Or how about companies in which IT struggles to justify its existence – ROIT (Assets) are a clear priority. How about rapid growth companies where IT has a struggle to keep up – flexibility wins here. There is no one set of priorities for all circumstances, but in general you need to understand what your (internal) customers want, and what their business strategy looks like – rapid growth, rapid change, low cost...

Once understood, we need then to prioritize IT metrics. This chart is a handy tool. For each attribute, label its row with “Superior,” “Advantage,” or “Parity.” You get to label one, and only one row “Superior”, and you must label two rows each “Advantage” and “Parity.”

Attribute	IT Supply-Chain Requirement
Reliability	
Responsiveness	
Flexibility	
Cost	
Assets	

So how do you make these decisions? Let's consider a business that is growing rapidly and needs to deploy a lot of IT quickly – say, in branch offices. You may find that the cycle-time of deploying IT in these offices is a major constraint to rollout due to the cycle time. An office can't open up if you must wait weeks for IT deployment. Business may easily and immediately request "Superior" performance in Responsiveness. Furthermore, you must be reliable (on-time), and exhibit some flexibility – You may have uneven demand on office and have very high upside/downsides to be put in. You will want "Advantage" performance in Reliability and Flexibility. Lastly, you've never (yet!) heard the business complain about cost, or "too much" IT. However, you still need to maintain competitiveness, so you choose Cost and Assets for "Parity" performance. Your chart then looks thus:

Attribute	IT Supply-Chain Requirement
Reliability	Advantage
Responsiveness	Superior
Flexibility	Advantage
Cost	Parity
Assets	Parity

Now, for the last part of this article, we'll link the Strategy (Attribute/Requirement) with the SCORcard by selecting the benchmark column for each row corresponding to the Strategy/Requirement for that attribute, and calculating the gap:

Attribute	Metric	Company	Parity	Advantage	Superior	Parity Gap	Competitive Gap
Reliability	Perfect Order Fulfillment	98%	92%	96%	98%	-6%	-2%
Responsiveness	Order Fulfillment Cycle Time	14 days	8 days	6days	4 days	6 days	10 days
Flexibility	Upside Supply-Chain Flexibility	62 days	80 days	62 days	40 days	-18 days	0 days
Cost	Supply-Chain Management Cost	2.1%	2.8%	2.4%	2.2%	-0.7%	-0.7%
Assets	Return on Fixed Assets	289%	100%	150%	200%	-189%	-189%

With this simple approach, we have calculated that, compared to competitive data, for this IT organization's IT Supply-Chain processes to be aligned to company strategy we need to focus on Responsiveness and reduce the cycle time for an IT Service event by 10 days. We don't need to focus on "ROIT," or Agility... We've taken all the mystery out of so many buzzwords. A note here – We are looking at five metrics, and found one gap. With 10-40 metrics, you will find many more gaps, but the process steps are the same to calculate the gaps. It's such a simple and effective way to perform this alignment of IT performance to business strategy, I hope more people begin to use SCORcarding for IT Supply-chains.

There are so many takeaways, but, in summary, we've taken complex, somewhat vague ideas (ROIT, IT Agility), used the idea of the IT Supply-chain and SCORcard, and shown how to calculate specific gaps and distances to cover in order to make IT supply-chains competitive. Next article we'll take the gap and look at the underlying IT Supply-Chain process model and

begin to allocate gaps to process nodes to begin the work of improvement. As always, comments and questions are encouraged, joseph.francis@pcor.com.