10 Symptoms of Poor Supply Chain Performance

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Summary

Here are our top 10 questions that determine if your IT systems hinder your supply chain performance. The best companies in your industry should answer with a straight Yes to these questions. Take this test, and discover if your current investment in IT is delivering the value for best-in-class.

Analysis

1. Are sales, marketing, production, logistics, and suppliers working from the same demand forecast?

"One number planning," is a sign of excellence. Poor companies produce a sales forecast that is a "tough but achievable" target for the sales force. Production doesn't believe this forecast, so it generates its own, which usually means large batches to reduce manufacturing costs. Logistics is left to deliver whatever sales manages to sell. Finance doesn't believe the production or the sales forecast, so it creates its own to manage the cash. Excellent companies generate a single forecast, and gain agreement, feedback, and co-ordination from sales, production, suppliers, and customers.

> These 10 questions identify weak supply chain management (SCM) processes. Every "YES" indicates you have achieved more operational excellence in SCM that reflects today's state-of-the art.

2. Have you eliminated all rekeying of data?

There should be no need to rekey data in the process of taking a customer order, and issuing production, purchasing, and transport orders. Rekeying data slows execution, adds cost and creates errors. Although it is feasible to integrate customer orders directly into the transaction processing system, few manufacturers achieve this level of integration. Similarly, relevant information in most purchase orders should be shared electronically with your suppliers.

3. Do your delivery lead times reflect available capacity?

A worst practice is to quote a standard lead time, such as two weeks, regardless of the customer or order size. A better practice is to allocate unallocated products from the master production schedule to each customer, a process termed availability to promise. The best practice process is capability to promise, which automatically calculates a delivery date by identifying spare capacity, materials, materials in production, and material purchase orders in the existing, committed production plan.

4. Are all production plans mathematically "optimized"?

For the last 20 years, MRPII has been the standard method of production planning. However, MRP II does not find the plan that minimizes production costs, maximizes customer service metrics, or most profitably utilizes limited resources. MRP II cannot optimize production sequences, schedule bottlenecks to operate at full capacity, or identify least cost routes.

Optimization involves searching a large number of feasible solutions to identify the best. The appropriate optimization algorithm depends on the problem. The main techniques are mixed integer linear programming, genetic algorithms, or constraint programming.

5. Is your part numbering consistent across every system?

Different systems, plants, and countries often use different part numbers to represent the same item. Yet, differing parts numbers hide similarities between components, sub-assemblies, and final products. Gaining economies of scale through standardizing on one common part numbering genealogy will go a long way in centralizing supply chain planning and purchasing across multiple plants, leading to better production optimization, supplier consolidation, and ultimately improved responsiveness to customer and market needs.

6. Do your key metrics measure total SC performance?

If you cannot measure supply chain performance, you cannot control nor improve performance. Metrics such as the Supply Chain Council's "perfect order fulfillment" reflect performance across order management, fulfillment, and accounting functions. However, many supply chain managers carefully select and define metrics that make them look good, often arguing that they face special conditions that require special metrics. The trouble this creates, though, is that the head-office cannot compare performance

across multiple divisions and geographies as easily as it compares, for instance, financial performance. It also becomes harder to transfer best practices across divisions and geographies.

7. Do you know how much product your key customers consumed today?

A key customer consumes more than 10 percent of your production. That customer may calculate their order quantity based on an Economic Order Quantity calculation. If so, this amplifies any variability in demand the customer reports back onto your plant. If you know your customers' actual daily consumption of your product, then you are in a much better position to replenish their stocks, minimize your transport costs, and manage the utilization of your plant.

8. Have you Consolidated and controlled transportation procurement, planning, and execution processes and technology?

Traditionally, companies have taken a fragmented approach to transportation management. Inbound, outbound, domestic, and international moves have generally been treated as independent activities, thereby forfeiting potential efficiencies gained by taking a more holistic perspective, an approach that many leading companies are now adopting. By centralizing and integrating transportation processes and technologies, companies are able to reduce costs and improve service levels by (among other things) enabling better compliance to routing guides, converting more LTL shipments into less expensive truckload shipments, and creating multi-stop and continuous move shipments.

9. If a process breaks, does the responsible manager discover the problem that day?

If a supplier cannot deliver the promised quantity, or a machine, truck or system fails, then the responsible manager should be informed that day. If the manager is unavailable, the problem should be escalated. Rapid dissemination of problems grants managers more time to solve problems, and widens their choice of options. In poorly managed companies, managers often only discover problems when promised materials or sub-assembles don't arrive in their department on the promised date, which is simply too late by today's standards.

10. Does your pricing dynamically depend on capacity utilization, competitors' actions, and the individual customer?

Traditionally, pricing and discount structures are rigidly enforced and slow to change, or each salesperson negotiates on a case-by-case basis, leaving money on the table. Yet dynamic pricing is common in the 3PL, airline, and hotel industries, as small sustainable price increases go straight to the bottom line. But if fixed costs are high, capacity utilization is low, and the prospect doesn't fully value your product offering, then temporary discounting enhances profits. Dynamically calculating the most appropriate price is potentially a technology with extremely rapid payback.

Recommendations

These questions reflect the main supply chain technologies and best practices that are being implemented today. Now that you've taken the test, how many times did you answer yes?

- If you scored under 3, the good news is that there is plenty of opportunity to improve your performance and the profitability of your company. Pay back on such investments should be under a year.
- A score of between 4 and 6 reflects, we believe, pragmatic use of available technology, and perhaps fairly average supply chain performance.
- Scoring 7 or 8 reflects early adoption of most of the useful supply chain technologies. Moving to the next level takes care, as those technologies are not yet fully proven.
- A score of 9 or 10 indicates your company is at the leading, probably the bleeding, edge of technology adoption.

The scoring reflects ARC's impression, based on hundreds of conversations with manufacturers, consultants, and suppliers, as to where most companies are today.

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