

Seven Steps To Measure Supplier Performance

by **Sherry Gordon**

Every organization knows it should be assessing supplier performance. Most are deploying some sort of supplier performance measurement, whether it is a couple of rudimentary key performance indicators (KPIs) or more sophisticated data gathering and on-site assessment programs. But few purchasing and quality professionals are likely to answer “yes”

when asked whether they are satisfied with their supplier assessment capabilities and results.

With increased reliance on suppliers for one’s own ability to meet customer requirements and expectations, and even, in some cases, to comply with legal and regulatory requirements, organizations are under increasing pressure to avoid supplier problems and to attract and retain the high performers, particularly among their strategic suppliers or long-term partners.

How can an organization turn thought into action and effectively use internal resources to improve the performance of these key suppliers and, at the same time, produce results and a return on investment?

The following seven steps comprise a process for developing and deploying supplier assessment:

1. Align supplier performance goals with organizational goals and objectives.
2. Determine an evaluation approach.
3. Develop a method to collect information about suppliers.
4. Design and develop a robust assessment system.
5. Deploy a supplier performance assessment system.
6. Give feedback to suppliers on their performance.
7. Produce results from measuring supplier performance.

In 50 Words Or Less

- Understanding supplier performance is a given in today’s business environment.
- Paying attention to performance both prevents problems and promotes improvement.
- Seven steps to focusing on strategic and long-term suppliers can produce meaningful results and return on investment.

1. Align Performance Goals

Determining what performance your organization wants from its supply chain cannot be done in a vacuum. You must first have in place a supplier strategy that relates to overall organizational goals and objectives.

Many organizations are pursuing continuous improvement programs and methodologies such as Six Sigma, lean enterprise, lean sigma, continuous improvement, operational excellence and total quality management. Typically, organizations trying to get to the next level of excellence need to have key suppliers aligned with their own organizational direction.

If a company is pursuing lean and just-in-time deliveries, key suppliers need to be on a lean journey themselves, because the lack of synchronization can adversely impact cost, quality and delivery. If a company is committed to Six Sigma and has developed a fact based culture, then the company will require a similar approach to performance improvement from its important suppliers.

Alternatively, if a company has not articulated an enterprise improvement strategy, the drive to allocate the resources to measure and improve supplier performance will be less strong. It is difficult to ask suppliers to “do what I say and not what I do.” Additionally, commitment of resources from upper management to such a program may be difficult if continuous improvement is not valued within the culture.

2. Choose Evaluation Approach

The aspects of supplier performance that companies may wish to evaluate include:

- Financial health.
- Operational performance metrics.
- Business processes and practices.
- Enabling behaviors or cultural factors.
- Risk factors.

Financial health. Financial health is most important for key suppliers or long-term partners. Typical indicators of financial strength include factors such as sales, profitability and liquidity. Financial data can be obtained via Dun & Bradstreet or other credit reports, banks and trade references.

Data are, of course, more accessible for publicly traded companies than for privately held ones. So, sometimes the best way to get financial information is to ask suppliers directly.

The challenge lies in being able to spot negative trends in advance of a major problem. It is not necessary to rely solely on financial reporting tools, because an understanding of a supplier’s operational performance metrics and business processes and practices can reveal potential financial issues.

Operational performance metrics. Operational performance metrics can cover many areas, such as on-time delivery, quality, lead times, responsiveness (rescheduling, order status), inventory turns and customer service call response time.

There are several ways to obtain these metrics: extract them from your own enterprise system,

Why Measure Supplier Performance?

An enterprise should measure supplier performance because:

- You can’t manage what you don’t measure.
- If you measure suppliers, they will improve.
- You can uncover and remove hidden waste and cost drivers in the supply chain.
- You can facilitate supplier performance improvement.
- You can increase competitiveness by shrinking order cycle times and inventory levels.
- You can make informed business decisions that impact the enterprise.

get reports from the supplier or conduct internal supplier satisfaction surveys of the end user at the customer.

Business processes and practices. Business processes and practices can be reviewed to see how a supplier runs its business and provides a product or service at the best value, on time and exactly as required for its customers. This information is typically best practice based and qualitative, focused on processes and inherently independent of any vertical business sector bias.

Business processes and practices information can be obtained through questionnaires or surveys or during site visits to suppliers. This information is critical for creating and maintaining mutually beneficial long-term relationships. It is also some of the most resource intense information to obtain, both for the customer and the supplier.

Organizations should consider applying commercially available supplier assessment software tools for this purpose to scale the process.

Evaluating business processes and practices can help get at the root causes of supplier problems. Traditional quantitative metrics can highlight a problem or negative trend but cannot get at the root cause.

A supplier, for example, may make a product that meets quality standards but do this by inspecting quality into the product rather than through defect prevention methods. This can result in eventual degradation of quality, with the product having a poorer cost structure to support inspection.

In the case of a service business, a company may need to add resources to maintain adequate service levels because of the inefficiency of its internal processes.

Enabling behaviors or cultural factors. At the heart of high performance business models such as

Six Sigma, the Malcolm Baldrige National Quality Award criteria and lean are enabling behaviors, such as customer focus, agility, continuous improvement and teamwork.

If, for example, a supplier does not have a continuous improvement culture, it is unlikely that supplier will be in sync with the demands of a customer that values continuous improvement methodologies and expects the same drive to improve in its supply base.

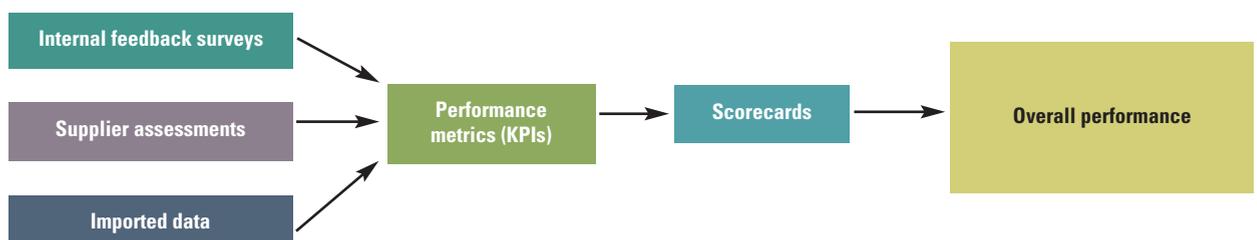
Risk factors. An important aspect of evaluating suppliers is to understand and then mitigate risk. You can uncover risk factors in financial health, operational performance environment, business processes and practices, and enabling behaviors or cultural factors. Risk cannot be determined solely by using past performance to predict the future.

Financial risk factors may be the most obvious area many companies focus on. The operational performance environment includes risk from dealing with foreign suppliers, such as trade relations, shipping and currency exchange.

The business processes and practices a supplier has in place are also critical. For example, knowing what processes a supplier uses (if any) to, in turn, manage its suppliers helps identify risk in lower tiers of the supply base not visible to the customer organization.

Another risk factor is the leadership in place at a supplier. A leadership committed to investing in the workforce and enabling employee empowerment and input has a greater chance of success and overcoming business adversity as it arises. A culture lacking teamwork and continuous improvement indicates higher risk to the customer, as the chances of a supplier being responsive to systemic problems and getting to root causes of problems and correcting them are slimmer.

FIGURE 1 Supplier Information Outputs



3. Develop Information Collection Method

The challenge is the coverage problem—how to collect any of the above information for a large portion of your supply base using current resources. Methods include paper questionnaires, web based questionnaires, extracts from current systems, site visits and third-party standard certification. These methods and their associated challenges are shown in Table 1.

Everyone thinks he or she can write a questionnaire, but most questionnaires, in fact, are poorly constructed. They are typically vague, full of buzzwords, ask for several pieces of information in one question and are discouragingly too long. They are just plain difficult to fill out easily and quickly. In addition, the information gathered often is not actionable.

If the assessment system design is not optimal, it will then be difficult to collect the information. Another drawback to questionnaire based supplier data gathering is that too few data points are gath-

ered from too few people, and the validity may be questionable. Quality managers, site managers or owners typically complete supplier surveys, and if they don't get others' inputs, they simply tend to paint a rosy picture of their own business.

Outputs of the various methods are shown in Figure 1 and can include:

- Reporting on survey results.
- Supplier performance metrics such as KPIs derived from internal surveys or internal management systems.
- Supplier assessment reporting, which can be qualitative and quantitative.
- Ultimately and ideally, supplier performance scorecards containing a rollup or summary view of all results.

Customers should create a holistic view of supplier performance, expose it to internal supplier relationship managers and give suppliers access to their performance indicators for increased collaboration.

4. Design a Robust Assessment System

Organizations need to choose an approach to evaluating suppliers. Approaches may include:

- Accepting a third-party standard, such as ISO 9001 and its sector specific derivatives or good manufacturing practices.
- Benchmarking performance against industry leaders.
- Measuring performance against best practices, such as the Malcolm Baldrige National Quality Award criteria.
- Developing KPIs and scorecards based on system data or internal customer feedback.
- Developing your own certification or evaluation and measuring performance against it.

No matter which components of a supplier assessment system an organization develops, a big challenge lies in creating a system founded on metrics both relevant to the business and based on generally accepted best practices.

Using available existing evaluation systems or third-party standards may be simpler

TABLE 1 Supplier Information Collection

Method	Challenges
Paper questionnaires	<ul style="list-style-type: none"> • Hard to construct sound information gathering instruments. • Require knowledge of what to measure. • Difficult to deploy. • Suppliers procrastinate filling out.
Web based questionnaires (either for internal company surveys of suppliers or for suppliers to complete)	<ul style="list-style-type: none"> • Require resources to develop. • Compliance issues (internal and external).
Extract from current systems	<ul style="list-style-type: none"> • Data integrity. • Require cleansing, massaging and formatting. • Data integrity disputes with suppliers.
Site visits	<ul style="list-style-type: none"> • Resource intensive for both customer and supplier. • Requires trained personnel. • Can be inconsistent.
Certification to third-party standards such as ISO 9001, ISO/TS 16949 and QS-9001	<ul style="list-style-type: none"> • Conformance to procedures does not guarantee best practice deployment. • Can move the focus away from performance to documentation of procedures. • Not specific to performance, processes and practices required by the customer.

but may not be aligned with the processes and practices critical to a company's particular industry position, culture or strategy.

Sometimes organizations collect data for the sake of data or collect the types of data they have historically gathered. They want to gather information from suppliers but have not connected data either to their organization's business strategy or to the performance that would best support their own business models.

Designing and developing a robust supplier performance measurement system requires deep business knowledge, familiarity with high performance systems and knowledge of measurement methodologies. It requires expertise in properly constructing the questions to elicit accurate responses and correctly measure performance.

Thus, some companies use a combination of these approaches.

5. Deploy the System

One of the biggest difficulties in assessment systems is deployment. For systems that require data extraction and massage, IT may need to develop and then link information from disparate systems.

For questionnaire based systems, the questionnaires themselves can become unwieldy and difficult for both internal and supplier participants to respond to. As for on-site evaluations or audits, they require training of personnel, preferably a cross functional team, and are resource intensive to properly deploy.

Subject matter expertise, survey instrument development expertise and knowledge of IT are needed to avoid the pitfalls in deploying all these approaches.

6. Give Actionable Feedback

Many organizations send performance report cards to their suppliers. Suppliers often bristle at the term "supplier management" because it implies one organization managing another. Customer companies need to have a real dialogue with their important suppliers on performance and work on the critical issues of the relationship. This requires a two-way flow of information.

If the results of performance measurement and supplier assessment are not actionable or expectations of actions are not communicated, those actions will not occur. This is a difficult piece of the supplier performance puzzle because many supplier organi-

zations may have competencies in some areas that exceed those of their customers.

In many cases, customers just drop the ball in the follow-up department, sending out results with no dialogue about next steps for continuous improvement and thus defeating part of the purpose of the whole exercise.

7. Produce Results

Measuring supplier performance is about understanding, communicating and then improving supplier performance. If all the important components of a good supplier assessment system are in place and you and your supplier are getting relevant, actionable results, then the suppliers can take the next step of improving their performance.

Supplier performance measurement can lead to supplier development, and supplier performance improvement has the potential to impact the customer financially and competitively.

An example is in purchased part lead times, which often make up a high proportion of overall lead times. Increased agility on the part of suppliers can translate into greater responsiveness by customers to their end users. Removing time from the supply chain also removes costs.

Companies need to work with suppliers to develop action plans as a result of assessments. They should then track performance to these plans to close the loop and realize the full benefits from the supplier performance measurement process.

BIBLIOGRAPHY

- Arter, Dennis R., *Quality Audits for Improved Performance*, third edition, ASQ Quality Press, 2003 (a basic guide to the principles of quality auditing that can be applied to supplier audits).
- Malcolm Baldrige National Quality Program, www.quality.nist.gov (excellent resource on quality assessment using the Baldrige criteria).
- Bossert, James L., *Supplier Management Handbook*, ASQ Quality Press, 2004 (a classic, in its sixth edition, about customer-supplier relations; contains practical information on setting up supplier certification).
- Cavinato, Joseph, and Ralph Kauffman, *The Purchasing Handbook: A Guide for the Purchasing and Supply Professional*, McGraw-Hill, 2001 (the classic guide to everything you need to know about supply management, including information on supplier evaluation).



Harding, Michael, and Mary Lu Harding, *Purchasing*, second edition, Barron's Educational Series, 2001 (a brief and practical guide to purchasing and supply management, it includes chapters on sourcing and supplier certification (with a checklist), as well as information on calculating total cost of ownership).

Juran, Joseph, and A. Blanton Godfrey, editors, *Quality Handbook*, McGraw-Hill, 1999 (a classic book on quality in its fifth edition, contains a chapter on supplier relations with a step-by-step planning approach).

Maass, Richard A., John O. Brown and James L. Bossert, *Supplier Certification: A Continuous Improvement Strategy*, ASQ Quality Press, 1990 (a how-to guide to developing supplier certification).

Moody, Patricia E., *Breakthrough Partnering: Creating a Collective Enterprise Advantage*, John Wiley, 1995 (how to create long-term relationships with suppliers that yield productive results; the appendix contains supplier assessments from several companies).

Norausky, Patrick, *Customer and Supplier Innovation Team Guidebook*, ASQ Quality Press, 2000 (a how-to book with exercises on creating customer-supplier innovation teams; offers a cross functional approach to extended enterprise performance improvement).

Ross, David F., *Competing Through Supply Chain Management: Creating Market-Winning Strategies Through Supply Chain Partnerships*, Kluwer Academic Publishers, 2000 (contains a good chapter on approaches to supply chain quality and performance measurement).

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