

CHANGING THE BOUNDARIES OF SUPPLIER AUDITS

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SUMMARY

Supplier quality system audits do not adequately address the risks inherent in today's complex business environment. Supplier audits need to focus on the suppliers and business systems that are truly critical to the supply chain, and better utilize available expertise to ensure that performance requirements will be met.

KEY WORDS

Business, Performance, Supply Chain

SUPPLIER MANAGEMENT OF THE PAST

Supplier management has certainly progressed in the past two decades. The receiving inspection process prevalent in the 1970's placed much of the cost and responsibility for quality on the purchaser. In the 1980's more responsibility was shifted to suppliers, requiring them to provide evidence of product quality, often through reporting of process stability and capability. During the 1990's greater responsibility was placed on suppliers by requiring compliance to ISO 9000 or another quality system standard.

Supplier certification has also been adopted by many companies, and often includes a combination of these methods. Suppliers are classified according to their potential impact on the customer's outgoing product quality, resulting in a scheme such as:

Class A Suppliers – The material provided by these companies becomes part of the finished product, so they must either be ISO 9000 registered or undergo an audit by the customer, and provide ongoing evidence of compliance (e.g., through certificates of analysis). An audit by the customer typically consists of a one-day visit by representatives from the Purchasing and Quality departments during which an assessment is done of the supplier's quality system.

Class B Suppliers – The output from these companies may be part of the production process, but doesn't become part of the finished product (tooling, for example). The supplier is required to complete a survey demonstrating that they have a formal quality system in place, but inspection of product output by either the supplier or customer is the primary mechanism used for decision making.

Class C Suppliers – These companies provide maintenance, repair, and operations (MRO) supplies, and no quality methodology is applied.

Supplier certification is usually applied to Class A suppliers, and consists of an ongoing supplier monitoring process that includes tracking and periodic reporting of supplier performance on measures such as defect levels (e.g., PPM), on-time delivery, and responsiveness and effectiveness of corrective actions.

The primary objective of these methodologies is for the customer to have confidence that a quality system is in place to reduce the likelihood of quality problems, and to give suppliers feedback on their performance. It shouldn't be a surprise to learn that the supplier's view of the process is similar to that of employees who undergo the annual performance appraisal process, with all its vulgarities.

Supplier quality system audits are, then, a key indicator of the perceived relative importance of a particular supplier. Let's look at some of the issues that might indicate whether or not this is a good idea.

PROBLEMS WITH THE SUPPLIER AUDIT PROCESS

Quality system audits by the customer or third party registrars have become a key method for assuring purchased product quality. However, there are some significant problems inherent with the process:

1. There is minimal correlation between ISO 9000 registration and outgoing product quality. A quality system such as that required by the ISO standard is a quality problem- avoidance-and-reaction system, not a system for ensuring continuous improvement and innovation.
2. Quality system audits look at only one of the many management systems that impact business reliability and performance. The implications of safety, environment, human resources, information systems, and strategic planning & execution can easily be as significant to long term viability of a company.
3. Purchasing and quality personnel often do not have sufficient knowledge to assess business reliability and performance. (Note: At a minimum, production and engineering personnel should also participate in supplier audits related to product quality.)
4. The broad-brush approach to identifying which suppliers to audit is focused on their impact on the purchaser (and actually on the Purchasing or Quality departments), and doesn't consider which suppliers are most critical to the entire supply chain.
5. Audits are frequently used as a rationale for selection, versus learning and improvement focused.

In looking at alternatives to the current audit process the following major questions should be asked. 1) Which suppliers should be audited? 2) What should be assessed during the audit? 3) Who should perform the audit? and 4) What should occur after the audit. The following answers to these questions are not provided as concrete recommendations, but are presented as issues to be considered.

WHICH SUPPLIERS SHOULD BE AUDITED?

A simple answer to this question is “suppliers who are most critical to supply chain reliability and performance, for which it is not already known whether or not they are an appropriate selection.” This means at least two major issues should be considered:

1. Is the product/service being purchased new or significantly different from what the supplier is now producing for other customers? Even if the answer is yes, perhaps only the product design and launch process portions of the quality system need to be evaluated if it is known that the output of their production process is stable. If the answer is no, and the supplier is known to perform well for other customers, why conduct an audit? This doesn't mean that some evidence of due diligence isn't necessary, but in learning of the supplier's performance (e.g., through contacting their other customers, or acquiring data on product field failures) such evidence can be obtained.

2. What is the impact of the supplier on the entire supply chain? Is it totally dependent on their product? For example, could the supplier's product be quickly obtained from another source? Or, in some cases the material may be so radically transformed by the purchaser that variation in the supplier has minimum impact. In others, the purchaser can source the entire finished product in case of emergency. How big would the ripples be in the supply chain if the supplier didn't perform (e.g., cost and time, customer/user impact)?

Using these criteria to determine whom to audit will likely alter one's view of quality. It's quality and reliability of the supplier, not just of their product, that is of interest. Far too many quality audits are not an effective use of resources. Just ask yourself how many audits done of your own company have contributed significant value to the organization.

WHAT SHOULD BE ASSESSED DURING THE AUDIT?

In a word – performance -- and not just quality system performance, but overall business performance. Compliance to particular standards for quality, safety, and the environment is of course important, but two firms complying with the same standard will almost for sure not have the same level of performance.

What types of performance should be assessed? Again, this depends on the role of the supplier and their product in the supply chain. Table 1 lists a few examples of items to be considered, and examples of when they should be assessed.

Table 1 – Assessment Item Selection

ITEM FOR ASSESSMENT	ASSESS WHEN:
Production Equipment Reliability	Supplier is operating at near capacity, or unique equipment is part of the critical path
Safety and/or Environmental Performance	Supplier production would be virtually shut down by a regulatory failure
Human Resource Practices	Supplier has a reputation for poor labor or government relations practices
Supplier Management Process	Supplier is highly dependent on their own subcontractors
Information Technology Management	Supplier utilizes (or will be required to) electronic communications with the supply chain
Education and Training Methods	Supplier must continually train new personnel or for new technologies/practices
Financial Management Systems	Supplier is highly leveraged
Product Design Process	Product performance to the user is highly dependent on reliability of the supplier's commodity

Note that this list could include many other management systems, such as development and execution of strategy, public relations, and continuous improvement methods and successes. The key point is that the particular components of the business that should be assessed depends upon the role the supplier plays in the supply chain, and how that role is unique. Rather than assessing all components, the Pareto principle should be applied to those most critical to ongoing reliability and performance of the supplier organization. A key reminder is that the assessment should not simply be focused on whether the supplier has a management system, but how that system has performed over time. This is an excellent test in and of itself, as to whether the supplier has a mindset that will trust sharing such information with potential customers.

WHO SHOULD PERFORM THE AUDIT?

The answer to this question of course depends on answers to the previous question of what will be assessed. Auditors must have the ability to understand the particular systems to be assessed, which means the audit team may be a cross-functional group consisting of a combination of Purchasing, Engineering, Quality, Operations, Information Technology, Finance, Legal, and Human Resources. In some cases the President or General Manager may also participate, as might representatives from other companies in the supply chain.

Note that the makeup of such a group will also call for an audit generalist. This is someone who:

- understands the breadth and depth of audits of all types of management systems,
- can ensure that interrelationships between the various systems is considered,
- facilitates the entire process, including subsequent discussions with the supplier.

It also means that functional specialists will need to be trained in audit methodologies, or that the company develop a core group of auditors who are able to audit multiple management systems.

WHAT SHOULD OCCUR AFTER THE AUDIT?

As with all audits, although resources have been spent, no value has been added unless appropriate post-audit action is taken. Following are possible audit findings and potential actions appropriate to each situation:

1. If all systems assessed meet the expected performance levels, document the findings, call to congratulate the supplier, and forward a copy of the audit summary report.
2. If minor adjustments are needed, document the findings and required actions, call the supplier indicating that action plans, including methods and schedules for follow up, are required, and arrange for supporting the supplier as necessary in implementing the necessary changes.
3. If major adjustments are required, document the findings, and call to arrange for appropriate supplier personnel (key executives and personnel responsible for the deficient management systems) to visit your location for a conference to determine their commitment to significant action. Remember that they were audited because they will play a significant role in the supply chain, which means helping them down the path to change will likely be necessary. If they indicate an unwillingness to do so, then an alternative strategy will be required (e.g., vertical integration, or significant product redesign).

CONCLUSIONS

The primary difference proposed here is that of expanding our view of why we do supplier audits. Once it's understood that the purpose is to ensure overall success of the supply chain, then an expansion of related audit issues is also required.

Supplier quality system audits have contributed to spreading the word about the importance of quality, and the need for a management system that helps keep quality on every business' agenda. It's now time to expand the boundaries of our thinking to include other issues that allow a business to sink or swim.

BIOGRAPHY

Duke is a management consultant working to build productive and professional organizations. He is an ASQ Fellow and the Quality Management Division's Vice Chair of Quality Management Technology. He is certified by ASQ as a quality manager, and by the Institute of Management Consultants as a certified management consultant. He can be reached at 423-323-7576 or dokes@preferred.com