

Quality Audits: Systematic Assessment of Suppliers and Processes

Quality audits are systematic, independent examinations by which companies determine whether processes, products and management systems comply with defined requirements. In industrial procurement, they serve primarily to objectively assess supplier capability before contract award and during series supply. They thus provide a sound basis for decision-making in supplier selection, the release of new parts and risk management in the supply chain.

Key facts

- Quality audits verify the conformity of processes and systems with standards such as ISO 9001 or IATF 16949 as well as customer-specific requirements.
- In practice, a distinction is made between system audits, process audits and product audits.
- Supplier audits are frequently conducted before series release and thereafter at regular intervals, typically every two to three years.
- Results often feed into the supplier score and influence contract award and development measures.
- Audit deviations require corrective actions with time-bound follow-up through to the effectiveness check.
- Remote and hybrid audit formats have become established in many industries as a complement to on-site audits.

Definition: What is a quality audit?

A quality audit is a planned, systematic and documented examination of whether activities and results fulfil the defined quality requirements and are effectively implemented. The examination is carried out by persons who are not responsible for the audited process in order to ensure independence.

System, process and product audits

System audits assess the quality management system as a whole, typically against the requirements of ISO 9001 or industry-specific standards such as IATF 16949 in the automotive industry. Process audits examine individual manufacturing and support processes along the flow of materials and information. Product audits check finished products on a sampling basis against drawings, specifications and agreed inspection characteristics. In practice, all three forms are combined, as only the interplay of system, process and product allows a sound assessment of delivery quality.

Supplier audits in procurement

For buyers, the supplier audit is particularly relevant. It takes place at the supplier's premises and answers the question of whether the supplier is capable of meeting agreed quality, delivery dates and quantities on a sustained basis. The results complement metrics such as the supplier score or schedule adherence with a qualitative, locally verified perspective. Quality audits thus provide an important basis for assessing the suitability of new suppliers and for decisions in ongoing business, such as awarding

new volumes or extending framework agreements.

Initial, series release and re-audits

In the initial audit before contract award, the focus is on the supplier's fundamental capability. As part of the series release process, an audit confirms that process and production control planning has actually been implemented and that the start of production (SOP) functions reliably. Regular re-audits and for-cause audits following quality problems then ensure the sustained compliance with requirements.

Methods and procedures in quality audits

An effective audit follows a structured process from preparation through execution to the follow-up of actions. The methodology is largely the same regardless of industry, but differs in scope and checklist depending on product risk.

Preparation and audit plan

The basis is an audit plan with objective, scope, audit criteria, date and team. Based on checklists, frequently drawing on standards such as VDA 6.3 or ISO 19011, the auditor prepares the audit-relevant questions. In addition, delivery history, complaints, drawings, requirement specifications and, where applicable, the results of ABC/XYZ classification are prepared in order to focus the audit effort on critical suppliers on a risk basis. The supplier receives a schedule detailing the processes to be audited, the functions involved and the documents to be requested.

On-site execution

During the audit, the auditor combines document review, walk-through and interviews with process owners. The comparison between documented requirements and actual execution is key: what do the work instructions say, and what actually happens on the line? Typical audit checkpoints include incoming goods inspection, traceability, measurement equipment monitoring, employee training levels, process control planning and the handling of deviations. Findings are classified as observations, minor deviations or major deviations and agreed with the supplier in the closing meeting.

Reporting and corrective actions

The audit report documents findings, assessments and agreed actions with deadlines and responsible persons. Deviations require a structured action plan, often based on the 8D report, including an effectiveness check. In the case of major findings, the status 'conditionally approved' may be imposed or the share of business suspended. Following up open items through to closure is part of the auditor's responsibility; otherwise the format quickly loses its impact.

Key KPIs and assessment criteria for quality audits

Quality audits can only be measured directly to a limited extent, but their results and effects can be assessed using established metrics. These feed into supplier evaluations and risk monitoring.

Audit and quality metrics

Key metrics are the audit score, for example as a percentage of met checkpoints, as well as the rate of audit-specific categories. In addition, delivery quality as quality parts target attainment, the rate of late and early deliveries measured against schedule adherence, complaint shares such as parts-per-million values and on-time delivery during start of production are considered. These metrics are usually

summarised in the supplier score and assessed against defined target values in an actual-versus-target comparison.

Action follow-up as an effectiveness metric

A frequently underestimated metric is the closure rate: how many corrective actions from audits are completed on time and effectively? In practice, an on-time closure rate significantly above 90 per cent is considered desirable; values well below this indicate a lack of prioritisation in supplier management. In addition, the average time from finding to effectiveness confirmation can be tracked, typically a few weeks to a few months depending on severity.

Risks and controls relating to quality audits

Audits significantly reduce supplier risks, but themselves create risks if they are improperly prepared or executed. Sound risk management considers both sides.

Audit risks on the commissioning party's side

An audit is only as good as its preparation and the independence of the auditors. Risks include checklists with mandatory fields that are ticked off formally rather than substantively examined, or auditors commissioned by and dependent on the very procurement function being assessed. Excessive focus on individual dates rather than trend analysis can also be misleading. Controls include trained, independent auditors, plausibility-checked finding assessments and regular cross-checks with ratings from day-to-day business.

Supplier risks and implications

Poor audit results can give rise to supplier failure risks, for example if capacity bottlenecks, inadequate process control or insufficient material planning are revealed. These risks require a risk mitigation plan, such as dual sourcing, safety stock or an adjustment to the tendering strategy. In the case of major, persistently unresolved findings, a right of termination for cause may become relevant – legal steps should, however, always be examined on a case-by-case basis.

Integrity, whistleblowing and compliance

Quality audits also touch on compliance issues: missing traceability, falsified inspection records or inappropriate pressure on employees are warning signs. A functioning whistleblowing system usefully complements the audit here, as it can enable insights from the supplier's own workforce. Evidence relating to freight forwarding and customs is also relevant: an AEO status of the supplier, for example, can underpin reliability in the supply chain and is frequently audited alongside.

Current developments in quality audits

Audit practice is changing noticeably as a result of digitalisation, sustainability requirements and increased resilience requirements. Buyers should incorporate these trends into their audit strategy.

Remote and hybrid audit formats

Video-supported walk-throughs, shared document views and hybrid formats reduce travel effort and enable more frequent interim checks. They do not fully replace the on-site audit – in particular initial audits and audits of critical processes generally still require physical presence – but they expand the toolkit. Prerequisites are reliable IT infrastructure at the supplier and clear rules on which evidence is

acceptable in digital form.

Sustainability and supply chain issues

Sustainability audits increasingly complement classic quality audits. Audited items include, for example, the supplier's SBTi targets, the recycled content share in materials and energy consumption. These issues are not only reputation-relevant: supply chain laws and customer requirements make them a contractual matter. Audits are therefore frequently extended to integrated assessments that capture quality, sustainability and resilience in a single exercise.

Resilience, logistics and digitalisation

Audits increasingly ask about the ability to think unconventionally: capacity reserves, second sources, transport routes including documented air waybill (AWB) processes and alternatives in the event of supply failures. Digital maturity – for example ordering and invoicing processes such as self-billing or the status of order rate per catalogue in electronic catalogues – is also coming into focus. As a result, quality, logistics and process audits are gradually merging into integrated supplier evaluations.

Typical metrics

Audit score: typically $\geq 80\%$

Proportion of audit checkpoints met; below this value suppliers are often considered to be in need of improvement.

Delivery quality: frequently $\geq 98\%$

Proportion of defect-free deliveries or quality parts target attainment as a complement to the audit.

Schedule adherence (on-time delivery): typically $> 95\%$

On-time deliveries within the agreed time window as a process indicator.

On-time action closure rate: $> 90\%$

Proportion of audit actions completed on time and effectively.

Complaint rate (ppm): industry-dependent, frequently in the low three-digit range

Defective parts per million; in the automotive industry target values are often considerably stricter.

Practical example

A medium-sized mechanical engineering company plans to award a new component with high precision requirements and conducts an initial audit at the supplier before start of production (SOP). The process audit reveals that measurement equipment monitoring is documented, but traceability of heat treatment batches is patchy. The finding is classified as a major deviation and included in the supplier score. After a structured action plan, including software support for batch traceability, a follow-up audit confirms effectiveness; series release is granted only after successful completion.

- Risk-based selection of audit focus areas based on component criticality
- Cross-check of process control planning, actual manufacturing and measurement equipment situation
- Time-bound action plan with effectiveness check in a follow-up audit
- Flow of results into the supplier score and the release decision

Conclusion

Quality audits are more than a mandatory appointment in supplier management: they provide buyers

with a verified basis for selection, release and risk management. Prerequisites for effectiveness are independent auditors, clear audit criteria and consistent follow-up of actions. Supplemented by metrics such as delivery quality, schedule adherence and audit score, a sound picture of supplier capability emerges. Those who integrate audits into supplier development, sustainability requirements and logistics requirements measurably reduce failure risks and strengthen their own position in the supply chain. The effort pays off particularly for critical parts and long lead times.

Frequently asked questions

What is meant by a quality audit?

A quality audit is a systematic, independent and documented examination of whether processes, products and management systems meet defined requirements. A distinction is usually made between system, process and product audits. In procurement, the supplier audit is the main focus, assessing the supplier's capability.

How does a supplier audit proceed?

There are typically four phases: preparation with an audit plan and checklist, announcement and scheduling, execution on site or remotely including document review, walk-through and interviews, and follow-up with a report and action plan. Deviations are classified and must be closed with corrective actions and an effectiveness check.

Which standards are relevant for quality audits?

The basis is frequently ISO 9001, supplemented by industry standards such as IATF 16949 in the automotive industry or ISO 13485 in the medical device sector. For process audits, many companies use question catalogues such as VDA 6.3. The exact requirements depend on the industry, product and customer specification.

How often should supplier audits be carried out?

In practice, audits at regular intervals of two to three years have become established, supplemented by for-cause audits following quality problems or significant process changes. Critical suppliers and components are audited more frequently, while low-risk suppliers are monitored less often or via remote formats.

What happens in the event of a major deviation in the audit?

The supplier must submit an action plan within a defined period, usually including an immediate containment action and root cause analysis. Until effectiveness is confirmed, the supplier's share of business may be restricted or suspended. In the case of persistent, unresolved major findings, contractual restrictive measures up to termination may be considered, the legal admissibility of which must be examined on a case-by-case basis.

Are remote audits equivalent to on-site audits?

Remote audits are well suited to the following: follow-up of actions, interim checks and low-risk suppliers. For initial audits, complex processes or high product criticality, the on-site audit remains indispensable in practice, because walk-throughs, inspection of machinery and personal interviews can only be replicated digitally to a limited extent.