

Supplier selection: systematically selecting high-performing suppliers in industrial procurement

Supplier selection is the process by which companies identify the most suitable sources of supply for materials, parts or services from potential suppliers and contractually commit them. It forms the foundation of supplier management and largely determines the quality, cost and delivery reliability of a company's own value creation. A structured selection process reduces procurement risks and lays the basis for long-term, high-performing supplier relationships.

Key facts

- Supplier selection typically follows a multi-stage process: market screening, request for quotation, bid evaluation, verification and contract award.
- Evaluation criteria include not only price but above all quality, logistics performance, technology, compliance and financial stability.
- Weighted scoring schemes (scoring models) are frequently used to make bid comparisons objective.
- Before award, an audit or supplier qualification is commonly carried out in practice.
- Selection is not a one-off act but is continuously reviewed through supplier management via supplier evaluations.
- Regulatory requirements such as the German Supply Chain Due Diligence Act extend the selection criteria to include sustainability and due diligence aspects.

Definition: supplier selection

Supplier selection refers to the systematic examination, evaluation and selection of sources of supply based on defined criteria. It is part of strategic procurement and follows on from the sourcing decision: once it has been determined what is to be procured, from whom and on what terms, procurement selects the specific suppliers. The outcome is typically a framework agreement or an award with agreed terms of delivery and performance.

Distinction from supplier qualification

Selection answers the question of which supplier is eligible; qualification then examines whether the selected supplier actually meets the requirements. In practice, the two steps are interlinked: before final selection, self-disclosures, audit questionnaires and sample production are common. Only after passing qualification is the supplier added to the supplier master data and released for purchase order transmission.

Classification by procurement object

The effort involved in supplier selection depends on the criticality of the item. For low-value C-parts, a simplified award process via catalogues or a free-text order to a vetted framework supplier is often

sufficient. For A-parts, customer-specific components or processes such as contract manufacturing and toll manufacturing, an in-depth review of process capability, capacities and tooling competence is required, frequently supported by a defined specification of requirements.

Methods and approach in supplier selection

A structured selection process increases objectivity, creates transparency vis-à-vis management and reduces the risk of later failures. A multi-stage approach, ranging from market exploration to contract negotiation, has proven effective.

Market screening and request for quotation

It starts with the identification of potential suppliers via market data, trade fairs, industry directories, recommendations or digital platforms. From the longlist, a shortlist is drawn up based on initial criteria such as technological capability, location and capacity. These suppliers receive a standardised request for quotation, ideally with an unambiguous specification of requirements, technical documentation and defined trading terms such as Incoterms CFR or CIP, so that quotations are comparable. For spot quantities or standard goods, an e-auction can also intensify competition.

Evaluation using weighted criteria

Bid evaluation is frequently carried out in practice using a scoring model with weighted criteria: typical blocks are price and total cost, quality and certifications, delivery and logistics performance, technology and innovative strength, service as well as risk and compliance. An overall supplier index helps to challenge seemingly favourable quotations whose hidden costs increase, for example, through long goods receipt lead times or high transport costs. For strategic goods, negotiation rounds and total cost of ownership analyses complement the picture.

Audit, sample inspection and contract

Before award, buyers together with quality and engineering inspect the candidate on site or via a remote audit, and financial figures are also checked on a sample basis. For part-specific processes, sample approval including metrology alignment follows. The contract should contain, in addition to prices and terms, provisions on delivery performance, a price revision clause, change orders and escalation routes. Results, criteria and evaluations are documented – also to make the selection traceable in the event of audits.

Key criteria and KPIs in supplier selection

Which criteria take priority depends on the commodity class. In industry, however, core areas have emerged that almost every selection review covers – supplemented by metrics with which performance can later be measured in ongoing operations.

Quality and technical competence

Certifications, process capability, manufacturing technologies, metrology and experience with comparable products form the substance of a supplier's quality. For customer-specific parts, responsiveness in design coordination also matters. Anyone intending to work closely with the supplier should also examine the capability for joint further development – an aspect that can later ease the transition to agile procurement.

Delivery and logistics performance

Reliability, on-time delivery, remaining contract terms and the ability to flexibly adjust quantities and delivery dates are decisive, especially for JIT or min-max control in the supplier's goods issue process. Also important are EDI connectivity for the electronic exchange of purchase orders and delivery notes as well as geographical proximity within the supplier network. These criteria later feed into ongoing supplier evaluation.

Economic stability and cost structure

Financial metrics, order book utilisation and dependence on individual customers provide insight into the supplier's risk of insolvency. Cost transparency – for instance, the willingness to disclose material and manufacturing costs – also facilitates later price negotiations and price revision clauses. Longer-lasting, more stable partnerships emerge when price and cost discussions take place on a sound data basis.

Risks and controls in supplier selection

Faulty supplier selection leads in practice to quality problems, supply failures, additional costs and reputational risks. Controls and structures in the selection process significantly mitigate these risks – especially for critical material groups and regulated markets.

Compliance, sustainability and regulation

Indirect involvement in violations of human rights or environmental regulations in the supply chain can have liability implications for German companies; the German Supply Chain Due Diligence Act requires corresponding risk management processes. Supplier selection is the first and most effective control point here: effective due diligence, contractual commitments and monitoring already at the selection stage significantly reduce risks. Tax aspects such as customs, preference rules and invoice verification, for example as part of Evaluated Receipt Settlement (ERS), should also be clarified in advance.

Financial due diligence and dependency risks

A supplier at risk of insolvency can bring an entire value chain to a standstill. Practical checks include business information reports, credit checks and an analysis of the supplier's customer structure. The same applies to procurement itself: too strong a concentration on a few suppliers increases dependency risk and should be mitigated through dual sourcing strategies or second sources within the commodity strategy.

Organisational controls and documentation

Separating enquiry, evaluation and award, defined thresholds for different award types and documented decision criteria reduce arbitrariness and traceability risks. A contract repository ensures that agreements can be found and their terms monitored. In addition, rights such as recalls, incoming goods inspections and right of instruction should be clearly regulated contractually.

Current developments: digitalisation and resilience

Supplier selection is changing noticeably as a result of digitalisation, geopolitical uncertainties and sustainability requirements. Buyers are increasingly combining classic evaluation methods with digital tools and risk-based monitoring approaches.

Digital sourcing platforms and data basis

E-sourcing platforms support enquiry, bid comparison and contract conclusion digitally and create a uniform data basis. Marketplace-based supplier profiles, ratings and certificates significantly accelerate screening. A prerequisite is clean inventory management and master data quality so that identified suppliers and materials can be correctly linked.

Resilience instead of pure cost optimisation

Supply chain disruptions in recent years have sharpened the question of robustness. Multi-sourcing strategies, regional manufacturing networks and a deliberate mix of low-cost and nearshore suppliers are gaining importance. Supplier selection therefore increasingly evaluates resilience criteria as well: alternative transport routes, capacity reserves and the ability to respond flexibly to demand peaks.

Sustainability as a selection criterion

CO data, the circular economy, working conditions and supply chain transparency are moving from an additional criterion to a standard evaluation component. Increasingly, customers and investors also demand evidence of a company's own procurement. In practice, this means: sustainability requirements belong in the enquiry, the specification of requirements and the contract – not only in downstream monitoring.

Typical metrics

On-time delivery: > 95%

Proportion of items delivered on time, typical target value for established suppliers

Complaint rate: < 1%

Extent of quality-rejected deliveries, should be measured during the selection period

Supplier score: at least 80 out of 100 points

Weighted overall score from the scoring model, thresholds are company-specific

Goods receipt lead time: < 2 days

Time from arrival to availability, an indicator of the supplier's process quality

Practical example

A medium-sized mechanical engineering company was looking for a new supplier of precision turned and milled parts after quality problems and rising prices at its existing supplier forced a change of source. Prior to the selection, procurement defined a weighted scoring model with the criteria quality, delivery performance, total cost, technology and compliance and sent a standardised request for quotation with a detailed specification of requirements to eight candidates.

- Shortlist of three suppliers after initial screening, including verification of capacity, certifications and site logistics
- On-site audits of all finalists, including review of process capability, metrology and EDI capability
- Sample approval over two delivery series with defined inspection features and goods receipt lead time measurement
- Conclusion of a framework agreement with a price revision clause, defined Incoterms and documented scoring as evidence of the decision

Conclusion

Supplier selection is far more than a price comparison: it determines with which partners a company secures its quality, delivery reliability and cost structure in the long term. A structured process with clear criteria, documented evaluation and contractual safeguards noticeably reduces risks. At the same time, selection is not a one-off act – only continuous supplier management maintains performance in day-to-day operations. Those who consistently integrate digital tools as well as resilience and sustainability criteria gain a genuine competitive advantage in procurement.

Frequently asked questions

How does a supplier selection process work step by step?

Typically in six steps: requirements definition and specification, market screening to create a longlist, request for quotations from a shortlist, bid evaluation using a weighted scoring model, audit or qualification of the frontrunner and finally contract negotiation and award. Each step should be documented to make the decision traceable.

Which criteria are important in supplier selection?

Besides price, the key factors are quality and certifications, delivery reliability, technical competence, financial stability, compliance and sustainability. In practice, weighted scoring schemes have proven effective, weighing these criteria differently depending on the commodity class. For critical parts, quality and security of supply dominate; for standard items, total cost usually prevails.

What is the difference between supplier selection and supplier evaluation?

Supplier selection takes place before the first award and decides which supplier is contracted. Supplier evaluation is an ongoing instrument after contract award that measures actual performance using metrics such as on-time delivery or complaint rate. Together, both form the core of effective supplier management.

What role does the German Supply Chain Due Diligence Act play in supplier selection?

The German Supply Chain Due Diligence Act (Lieferkettensorgfaltspflichtengesetz) obliges companies to carry out due diligence regarding human rights and environmental risks in the supply chain. Selecting new suppliers is a critical point for this: risk assessment, contractual commitments and monitoring should start here. The specific implementation depends on the company context and should be examined on a case-by-case basis.

How many suppliers should you include in a request for quotation?

In practice, a shortlist of three to six suppliers has proven effective: enough for genuine competition, yet still manageable in evaluation. For strategic goods, a broader screening is worthwhile; for C-parts, a request to vetted framework suppliers is often sufficient. What matters is the comparability of the enquiries, for example through a uniform specification of requirements and Incoterms.

What belongs in a supplier contract after successful selection?

The core components are prices and terms, delivery and quality agreements, Incoterms, terms of contract and termination rules. Also important are provisions on price adjustments (price revision clause), changes to the order (change order), intellectual property and escalation routes. In addition, it is advisable to contractually stipulate inspection and recall rights as well as sustainability and compliance commitments.