

Order Management: Processes, KPIs and Digitalisation in Industrial Procurement

Order management encompasses the planning, execution, monitoring, and follow-up of purchase orders between companies and suppliers. It forms the operational backbone of the procurement process and ensures that materials and services arrive on time, in the right quantity and quality, and on agreed terms. In industry, it covers all steps from demand reporting through ordering to invoice verification.

Key facts

- Order management covers the entire cycle from demand identification to invoice processing.
- A high degree of automation significantly reduces manual errors and shortens cycle times.
- Key metrics are order cycle time, order accuracy, and open purchase order value.
- The interface to the material availability check (ATP) prevents incorrect orders and production stoppages.
- Digital processes such as punchout and OCI connect procurement systems directly with supplier catalogues.

Definition: Order Management

Order management refers to the structured control of all ordering processes within the procurement process. It begins with the identification of demand and ends with the verification and payment of the invoice. The term is often used synonymously with order management, but in an industrial context it also includes coordination with production, logistics, and controlling.

Distinction from procurement management

While procurement management covers strategic tasks such as supplier selection and negotiation rounds as well as framework agreements, order management focuses on operational execution. It translates agreed terms into concrete purchase orders and monitors compliance with them. However, the two levels interlock: contract data, mandatory and optional criteria, and supplier evaluations flow into every individual order.

Typical process steps

In practice, the process usually follows a clearly defined sequence that is mapped in ERP or e-procurement systems. Each step generates documentable data that can be used for metrics and audits.

- Demand identification and approval (requisition with approval workflow)
- Sourcing and order release based on framework agreements
- Order confirmation and schedule monitoring with the supplier
- Goods receipt, quality inspection, and invoice verification (three-way match)

Roles involved

Several functions work together in order management: the requesting department, procurement, logistics at goods receipt, and accounting. Clear responsibilities are important so that approvals are not blocked and thresholds for order values are clearly regulated. In many companies, a key user or a central service team takes on coordination.

Methods and approach in order management

Functioning order management combines standardised processes with demand-appropriate procurement strategies. Depending on the material class and criticality, different methods are used, from automated demand planning to project-based individual ordering.

Demand identification and planning methods

In series production, consumption-driven methods such as reorder point or forecast planning dominate. For complex products, the bill of materials explosion in the MRP run determines demand precisely on schedule. For long-lived A-parts and capital goods, on the other hand, ordering is project-based, often supported by a sales forecast or a delivery plan hockey-stick logic. A material availability check (ATP) before order release prevents duplicate orders and uncovers shortages early.

Order types and contract release

The choice of order type influences effort and flexibility: standard orders are suitable for one-off requirements, call-off orders under framework agreements reduce transaction costs for recurring items. Release and blanket orders keep scope open for quantity and schedule changes. In practice, contract-bound call-offs are frequently transferred directly from supplier systems into the procurement system via punchout or through OCI catalogues, which minimises manual entry.

JIT, kanban and e-kanban

For standard parts with constant consumption, delivery call-offs and kanban loops replace the classic individual order. The supplier replenishes independently as long as the stocks at the point of consumption remain above defined reorder points. This considerably reduces ordering processes and shortens planning time windows, but requires reliable incoming quality and a secured logistics chain with clear agreements on loading points and delivery windows.

Key KPIs in order management

Metrics make the performance of the ordering process measurable and reveal improvement potential. They should be defined uniformly across all organisational units so that comparisons are meaningful.

Process metrics

The most common metrics relate to speed and accuracy. In practice, the following benchmarks apply: order cycle times of typically 1 to 3 days for automated processes, a supplier on-time delivery rate of over 95 per cent, and an order process automation rate that in mature organisations is often well over 80 per cent. In addition, the open purchase order list shows whether old orders or missing order confirmations are stuck in the system.

Cost and quality metrics

Besides process speed, costs and supplier performance count. Purchase order process cost per order

provides insight into the level of efficiency, while process cost per order line reveals finer differences. On the supplier side, parts per million (PPM) for incoming quality and metrics on declaration of conformity complement the picture. A slow-mover analysis helps to critically examine stock levels and order frequencies for marginal items.

Metrics for finance and payment processes

The payment side also belongs to order management. Accounts payable days optimisation aims to make use of early payment discount terms such as 2/10 net or to smooth payment flows using instruments such as reverse factoring without straining supplier relationships. A high level of invoice automation reduces reconciliation effort in the three-way match and accelerates the payment cycle.

Risks and controls in the ordering process

Errors in order management lead to shortages, additional costs, or delivery failures. Systematic risk management combines technical controls in the system with organisational approval rules and continuous supplier monitoring.

Typical risk areas

Common risks include duplicate or shadow orders, missing order confirmations, unclear Incoterms such as FOB, and the incorrect allocation of export handling obligations in international procurement. Incomplete supplier master data also causes problems: clean vendor master record creation prevents payments to wrong accounts and errors in invoice processing. Missing declarations of conformity can lead to sales stoppages for regulated products.

Supplier risks and safeguards

Structured supplier risk management assesses dependencies, financially fragile suppliers, and single-source situations. Measures such as supplier de-risking, a joint business plan (JBP) with critical partners, or contractual safeguards such as a parent company guarantee reduce default risks. Statistical process control (SPC) at the supplier additionally secures the process capability of critical components.

Controls and compliance

Effective controls include four-eyes principles for approvals, threshold checks, and regular actual-versus-target reconciliations between order, goods receipt, and invoice. Notes on legal obligations, for example regarding procurement, competition, or data protection regulations, must always be examined on a case-by-case basis. Documentation requirements and auditability should already be considered when designing the process.

Current developments and digitalisation

Order management is changing significantly through automation, data integration, and AI-based support. Increasingly, resilience aspects are also coming to the fore, going beyond pure efficiency considerations.

Automation and AI

Modern systems automate purchase order proposals, approvals, and order confirmations up to fully automated three-way matching. AI applications support request creation, item data classification, and the prediction of delivery delays. The target is a virtually touchless process for C- and B-parts, freeing

up buyer capacity for strategic topics and negotiation rounds.

Integration and data flows

A key driver is seamless integration between ERP, e-procurement, and supplier systems. Standards such as OCI and punchout connect catalogues seamlessly, and EDI connections transmit purchase orders and delivery advices electronically. Consistent vendor master record creation and clean item data are fundamental prerequisites here, as errors in master data multiply along the entire chain.

Resilience and sustainability

Supply chain disruptions have expanded order management to include resilience perspectives: buffer stock strategies for critical parts, dual sourcing, and transparent supplier networks are gaining importance. At the same time, evidence and compliance requirements must be mapped along the order, for example regarding country of origin information and declarations of conformity. Both topics require additional data in the ordering process and closer collaboration with suppliers.

Typical metrics

Order confirmation timeliness: > 95%

Share of purchase orders confirmed on time

Order cycle time: 1–3 days

Typical benchmark for automated processes

Degree of order automation: > 80%

Share without manual entry in mature organisations

Supplier on-time delivery: > 95%

Punctual delivery within the agreed time window

Practical example

A medium-sized mechanical engineering company with around 400 suppliers struggled with long order cycle times and frequent schedule communication problems. Following a process analysis, standard parts were switched to kanban and call-off concepts, critical A-parts were given fixed order confirmation obligations and weekly schedule checks. Within one year, the number of manually coordinated purchase orders fell significantly, and the delivery reliability of key suppliers improved noticeably.

- Migration of C-parts to kanban loops with delivery call-offs
- Introduction of automatic dunning runs for missing order confirmations
- EDI integration of the top 20 suppliers for purchase orders and delivery advices
- Monthly KPI review with suppliers based on uniform metrics

Conclusion

Order management is more than just issuing purchase orders: it connects demand, contract, supplier, and payment into a measurable end-to-end process. Those who consistently automate standard cases and manage critical positions in a targeted manner reduce process costs while simultaneously improving delivery performance. Uniform KPIs, clean master data, and clear approval rules form the foundation for this. Given rising demands for resilience and compliance, the topic is becoming more strategically relevant, not less operational.

Frequently asked questions

What is order management?

Order management encompasses the complete control of ordering processes from demand reporting through ordering to invoice verification. It is part of operational procurement and ensures that materials are delivered on time, in the right quantity and quality, and on agreed terms. In practice, it is usually supported by ERP and e-procurement systems.

Which tasks belong to order management?

Core tasks include demand identification and approval, purchase order release, order confirmation and deadline monitoring, goods receipt, and invoice verification. In addition, supplier communication, quantity and date changes, and the maintenance of order data are also part of it. For critical parts, quality agreements and incoming goods inspections are added.

Which KPIs are relevant in order management?

Key metrics include order cycle time, on-time delivery performance, order accuracy, degree of automation, and process cost per order. On the supplier side, delivery reliability, incoming quality measured in PPM, and open purchase order values complement the picture. Financial metrics such as early payment discount rates or accounts payable days also form part of the overall assessment.

How can the ordering process be automated?

Automation is achieved through catalogue connections such as punchout and OCI, EDI interfaces for purchase orders and delivery advices, and automated approval workflows. For standard parts, kanban or delivery call-off concepts replace individual orders. The prerequisites are clean master data and clearly defined mandatory and optional criteria in the process.

What is the difference between order management and procurement management?

Procurement management encompasses the entire procurement cycle including strategy, supplier selection, and negotiation. Order management is the operational sub-discipline that translates contracts and terms into concrete purchase orders and monitors their execution. Both levels work together but have different time horizons and tasks.

Why is an order confirmation important?

The order confirmation documents that the supplier has accepted quantity, delivery date, and price, and provides reliable planning data. Missing confirmations frequently lead to unrecognised schedule or quantity deviations that only come to light at goods receipt. Systematic confirmation checks are therefore part of the standard of professional order management.