

Process costs: Making invisible costs in procurement measurable and reducing them

Process costs are the costs incurred in companies from carrying out recurring workflows – from the purchase requisition through the purchase order to invoice verification and payment. In procurement, they account for a considerable share of the total cost of ownership, but are often recorded inadequately. Those who measure them systematically can reduce transaction costs, create room for strategic tasks and manage procurement measurably more efficiently.

Key facts

- Process costs are overhead costs arising from recurring activities such as ordering, checking and paying, not from the material itself.
- Typical drivers in procurement are order volume, number of suppliers, approval levels, manual invoice receipt and exception rates.
- In practice, the effort per purchase order transaction – depending on complexity and degree of automation – is often in the range of around EUR 30 to over EUR 100.
- The most important levers are consolidation of the supplier base, catalogue-based procurement, guided buying rules and automated invoice processing.
- Process costs should be continuously monitored using KPIs such as cost per order, share of touchless invoices and share of maverick buying.

Definition: process costs

Process costs denote the costs arising from the execution and maintenance of business processes – regardless of the value of the product procured. They consist of personnel costs, system costs, interface and communication effort, and error and correction effort. In procurement, they typically cover the entire order-to-cycle process from demand notification to the paid invoice.

Delineation from total cost of ownership

Total cost of ownership considers all costs of a product over its life cycle, including material costs, logistics, maintenance and disposal. Process costs are one sub-aspect: they do not relate to the product, but to the transaction itself. The distinction is central for procurement, because a low purchase price can be more expensive than a higher price with a lean process if workflows are inefficient.

Direct and indirect process costs

Direct process costs can be clearly allocated to a transaction, for example the time a buyer spends on a purchase order or licence costs of a procurement platform. Indirect costs arise from rework, queries, defect handling – for example when a notice of defects triggers an elaborate clarification process – or from incorrectly booked items that only come to light during commercial invoice verification. In practice, indirect costs are often underestimated, as they are incurred across several departments.

Process costs in the procurement process: where they arise

Process costs are incurred along the entire procurement chain. A structured view along the process steps helps to identify the biggest cost drivers and set priorities for optimisation measures.

Requisition, enquiry and purchase order

The first cost focus lies in requirements clarification and order handling: manual enquiries, paper-based approvals, telephone re-orders and unstructured requests cause high processing effort. A high degree of standardisation – for example through catalogues, framework agreements and pre-defined requirement profiles – significantly reduces effort per transaction. Guided buying rules automatically direct requisitioners to pre-validated suppliers and terms, and reduce maverick buying, i.e. purchases outside agreed processes.

Goods receipt and invoice processing

In goods receipt, costs arise from inspection effort, rejections and clarifications; a practice-tested goods receipt inspection plan helps to design inspection effort on a risk basis rather than across the board. In invoice processing, they arise from manual entry, account assignment, approval and clarification of discrepancies. A high degree of invoice automation – for example through e-invoicing, OCR and automatic three-way match – is one of the most effective levers for reducing process costs.

Supplier communication and master data maintenance

Ongoing effort for supplier queries, price enquiries, change notifications and the maintenance of supplier and material master data is frequently underestimated. A supplier portal shifts standardised queries and data entry to the supplier side and relieves internal administrative staff. The number of suppliers themselves is also a cost driver: a fragmented supplier base means more master records, more framework agreements and more coordination effort – here, targeted consolidation based on the supplier portfolio helps.

Methods for recording and evaluating process costs

Without reliable recording, process costs remain a rough magnitude. Proven methods make the effort per transaction visible and create the basis for prioritisation and business cases.

Process cost accounting and time-recording

Process cost accounting allocates the costs of cost centres to processes and their outputs. In practice, one often starts with sample surveys or time-recording over two to four weeks to determine average processing times per transaction. These times are multiplied with full cost rates and supplemented with system and error costs. A uniform definition of the 'transaction' – for example per order line or per purchase order header – is important so that KPIs remain comparable.

ABC analysis and exception analysis

Not every purchase order transaction deserves the same attention. An ABC analysis by value or criticality shows where standard processes suffice and where individual engagement is worthwhile. In addition, an exception analysis is worthwhile: transactions with deviations – price differences, missing delivery dates, subsequent changes – usually cause a multiple of normal effort. Root cause analyses, for example with an Ishikawa diagram, make the causes of these exceptions tangible.

Benchmarking and target process design

Internal comparisons between sites, entities or categories show variations in effort per transaction and provide concrete optimisation approaches. External guideline values from associations or consulting databases give a rough orientation, but should be interpreted with caution due to differing definitions. Building on the current-state assessment, a target process is designed: fewer interfaces, clear approval rules, a higher degree of automation and standardised communication with suppliers.

Key KPIs for managing process costs

Process costs can only be managed if they are measured regularly. A compact KPI set-up with a few reliably collected KPIs is better than extensive reporting with patchy data.

Core KPIs of transaction efficiency

The most important KPI is process costs per purchase order or per order line. In addition, the proportion of invoices processed automatically (touchless rate), the exception rate in the order process, the share of maverick buying in order volume and the rate of requirements handled via catalogues or framework agreements are relevant. Lead times from enquiry to order and from invoice receipt to payment also provide insights into process quality.

KPIs for master data and supplier processes

Data quality is a hidden cost driver: the error rate in purchase orders, the complaint rate per supplier and the proportion of incomplete supplier master records directly influence rework effort. In multi-stage award processes, KPIs on forecast accuracy show how reliable demand notifications are – inaccurate forecasts generate expensive ad-hoc processes. The turnover rate of the supplier shortlist in tenders also indicates whether the procurement effort is proportionate to the result.

Risks, controls and typical pitfalls

Process cost reduction carries risks if efficiency measures undermine internal controls or supplier quality. Balanced management combines cost reduction with risk management and compliance.

Efficiency versus control

Fully automated approvals and touchless invoice processing save costs, but can open control gaps – for example with duplicate invoices or fictitious suppliers. Controls should therefore be designed on a risk basis: high automation for low-risk items, mandatory verification steps for critical amounts, new suppliers and special accounts. Commercial invoice verification remains a necessary control instrument even with a high degree of automation, albeit reduced on a risk-weighted basis.

Perverse incentives and maverick buying

Those who manage process costs solely by the number of transactions risk perverse incentives: requisitioners bypass the process, purchase orders are bundled or split to circumvent thresholds. Clear guided buying rules, transparent terms and simple, accepted standard routes provide the counterbalance. User acceptance is the decisive factor – a technically perfect process that is bypassed ultimately increases process costs.

Negotiation and selection effects

Strong standardisation and supplier consolidation reduce transaction costs, but can reduce competitive

intensity and increase dependencies. Risk management should therefore regularly check whether savings in effort are eaten up by higher prices or single-source risks. For critical items, security considerations – for example contracts secured by a bank guarantee or performance bond – justify deliberately higher process effort.

Current developments: digitalisation and e-invoicing

Several developments are fundamentally changing the process cost structure in procurement: mandatory e-invoicing, AI-supported demand handling and platform models for supplier relationships. Those who simplify their own processes now create the conditions to benefit from these effects.

E-invoicing and degree of invoice automation

The step-by-step e-invoicing obligation in B2B in Germany is driving the automation of invoice processing; structured data formats make the automatic matching with purchase order and goods receipt considerably easier. Companies with a high purchase-order-based procurement rate benefit the most. The legal details and transition periods should be examined on a case-by-case basis with tax advisers, as requirements and deadlines are continuously changing.

AI, platforms and guided buying

AI applications support requirements classification, bid comparison and contract review and reduce manual effort in preparation. B2B marketplaces and procurement platforms offer pre-configured supplier relationships that significantly reduce transaction effort for recurring requirements. At the same time, pressure is growing to adapt the procurement strategy to changed conditions – for example through supplier relocation, localisation of supply sources or requirements regarding the supply chain carbon footprint (SCF), which generate additional data and verification processes.

Typical metrics

Process costs per purchase order transaction: EUR 30–100+ (typical guideline value)

Strongly dependent on degree of automation and exception rate; own measurement with a uniform definition is recommended.

Touchless rate (automatically processed invoices): > 70–80 %

According to practical reports, best-in-class values are significantly higher; low values indicate process or data quality problems.

Proportion of maverick buying: < 10 %

Proportion of purchases outside established processes as a share of total volume.

Proportion of requirements handled via catalogue or contract: > 80 %

A high rate typically significantly reduces effort per transaction.

Practical example

A mid-sized mechanical engineering company with around 350 employees determined in a four-week current-state analysis process costs of well over EUR 80 per purchase order transaction, caused primarily by manual enquiries by e-mail, telephone re-orders and manually entered paper invoices. Around one third of the procurement volume came via non-catalogue direct orders, which subsequently required extensive rework.

- Introduction of catalogue-based procurement and guided buying rules for C-parts, plus framework agreements for the most common repeat requirements.
- Consolidation of the supplier base from over 400 to around 180 active suppliers based on a supplier portfolio analysis.
- Switch to e-invoicing with automatic three-way match, risk-based commercial invoice verification and touchless approval for low-risk items.
- Set-up of a supplier portal for master data entry, order confirmations and standardised queries.

Conclusion

In procurement, process costs are often the biggest untapped lever: they are hard to see, but in total are often as significant as substantial price discounts. The path to reducing them begins with an honest assessment of the current state per transaction, followed by standardisation, consolidation and automation of routine transactions. It is crucial not to pit efficiency against control or supplier quality, but to balance them on a risk basis. Those who measure process costs continuously and anchor them as an independent KPI group in procurement can demonstrate improvements and free up resources for strategic tasks.

Frequently asked questions

What are process costs, explained simply?

Process costs are all costs incurred in handling workflows, for example creating a purchase order, checking an invoice or clarifying a delivery discrepancy. They are independent of the value of the purchased product and are incurred anew with every transaction. In procurement, they are among the most important levers for increasing efficiency.

What are the average process costs per purchase order?

In practice, depending on the industry, complexity and degree of automation, figures of around EUR 30 to over EUR 100 per purchase order are frequently cited. Manually processed transactions with exceptions are at the upper end. It is important that companies measure this KPI themselves with a uniform definition, as external benchmarks are often defined differently.

How can process costs be reduced in procurement?

The most effective levers are standardising requirements via catalogues and framework agreements, consolidating the supplier base, and automating invoice processing up to touchless processing. In addition, guided buying rules reduce maverick buying, and a supplier portal shifts routine queries to the supplier side. A reliable assessment of the current state is always the prerequisite.

What is the difference between process costs and transaction costs?

The terms are often used synonymously in practice, but there is a difference: transaction costs refer to the costs of initiating and conducting business relationships, for example for searching, negotiating and concluding contracts. Process costs are broader and also include ongoing execution costs such as master data maintenance, approvals and error resolution.

Which KPIs measure process costs in procurement?

Key KPIs are process costs per purchase order or order line, the proportion of invoices processed automatically, the exception rate, the proportion of maverick buying and the lead times from requisition

to payment. In addition, data quality and complaint KPIs provide indications of hidden rework effort.

Is a process cost analysis worthwhile for small companies?

Yes, in simplified form. Even a sample of processing times over two weeks often reveals considerable variation and clear areas for optimisation. Small companies benefit particularly from catalogue-based procurement, platform solutions and e-invoicing, because they can use professional processes without major IT effort.