

Sales Forecast: sales forecasts as a foundation for procurement and supply chain planning

The sales forecast is the structured estimate of future sales of products or services over a defined period. In industrial procurement, it serves as a central input for demand determination, scheduling and supplier management. The more accurate the forecast, the more reliably order quantities, framework agreements and capacity commitments to suppliers can be planned.

Key facts

- A sales forecast projects sales volumes and values, typically for periods from one month to several years in advance.
- It is the most important input for demand planning and, indirectly, for gross requirements and the ordering process.
- Common methods range from time series-based techniques to consensus-driven processes such as S&OP.
- Forecast quality is frequently measured using forecast accuracy and bias; in practice, deviations are often in the range of 10 to 30 per cent depending on the industry.
- In a B2B environment, forecasts are typically fed by CRM data, order backlogs and customer information.
- Inaccurate forecasts frequently cause high costs in practice through safety stock, expedited purchases and obsolescence.

Definition: sales forecast

The sales forecast is the quantitative and qualitative advance estimate of expected sales of products, assemblies or services in a future period. It is usually prepared at item, product family or business unit level and expressed in both units and monetary values.

Distinction from the demand forecast

While the sales forecast reflects expected sales from the customer's perspective, demand planning derives the planning requirements from it, i.e. what actually needs to be produced and procured. The difference lies, among other things, in stock adjustments, batch sizes and lead times. In practice, the two perspectives are often merged but remain conceptually distinct.

Forecast horizons and granularity

Short-term forecasts (weeks to months) serve operational scheduling and detailed planning, medium-term forecasts (three to twelve months) capacity and framework agreement planning, and long-term forecasts (several years) strategic decisions such as plant locations or investments. The longer the horizon, the coarser the granularity typically becomes: from units per item per week to

product group per quarter.

Methods and approach for sales forecasting

The choice of method depends on the data situation, product life cycle and market dynamics. In practice, combinations of statistical methods and human expertise prove effective, as purely data-driven models can hardly capture market effects such as customer tenders or supply shortages.

Statistical methods

Time series methods such as moving averages, exponential smoothing or seasonal decomposition form the repeatable core of many forecasts. They use historical sales data and deliver reproducible baseline values. The prerequisite is a clean data foundation; this is where concepts such as the procurement data model and data quality KPIs come into play, as faulty master data directly reduces forecast quality.

Market- and CRM-based forecasts

In B2B business, pipeline data from sales often flows in: quotations, probabilities, customer information and projected framework call-offs. Particularly for complex capital goods, direct conversations with key account customers provide more valuable signals than statistical models, because orders there are placed discretely and in large tranches.

Consensus-driven processes (S&OP)

In sales and operations planning (S&OP), the sales, production and procurement forecasts are reconciled in a regular cycle and aligned into a consensus. This forecast should be underpinned by a clearly defined escalation process in cases where sales and planning disagree. This creates a binding planning basis for procurement and capacity.

Importance for procurement and supplier management

For procurement, the sales forecast is the bridge between market demand and the supplier relationship. It determines which quantities must be procured when and forms the basis for volume negotiations, framework agreements and capacity commitments.

Demand determination and ordering

Gross requirements are derived from the sales forecast, from which the secondary requirement for components and raw materials is generated via bills of materials and scheduling logic. The earlier and more accurate the forecast, the better lead times can be taken into account, especially for long lead-time items and imported parts. Short procurement throughput times, on the other hand, make it easier to adapt to short-term forecast changes.

Framework agreements and capacity commitments

Suppliers require reliable volume planning for price and capacity commitments, often as forecast bands with fixed quantities for short periods and non-binding lookaheads. In tenders, the buyer should communicate planning uncertainty openly, for example via a structured tender questionnaire, in order to avoid later price renegotiations. In highly competitive tendering, an e-auction based on sound volume forecasts can also be worthwhile.

Supplier communication and the fulfilment process

A continuously updated forecast enables suppliers to schedule their own upstream products in good time and to keep the fulfilment process from order to delivery stable. Conversely, an unreliable forecast often has a direct impact on the delivery performance of the entire network, as suppliers respond with buffer stocks or capacity reserves.

Key KPIs for evaluating forecast quality

Without measurable forecast quality, forecast management remains guesswork. Established KPIs make deviations visible and create the foundation for continuous improvement.

Forecast accuracy and bias

Forecast accuracy measures how close the forecast was to actual sales, typically as MAPE (mean absolute percentage error). Bias indicates systematic over- or underestimation; a value other than zero points to structural errors in the model or the process. In practice, accuracy for seasonal industrial products is often in the range of 70 to 90 per cent, and considerably lower for new products.

Planning relevance and downstream costs

In addition to pure forecast errors, downstream metrics count: safety stock, inventory coverage, expedited purchase costs and scrap rate due to obsolescence. The data quality of the underlying master data should also be monitored as a KPI, as incomplete or outdated item master data is a frequent source of error. The data owner of each master data domain is responsible for maintenance and currency here.

Risks, controls and typical sources of error

Forecasts are always imperfect. What matters is managing the risks systematically rather than expecting perfect predictions. A clear governance loop of responsibilities, control mechanisms and consequence paths has proven its worth.

Typical sources of error

Common problems include politically motivated sales forecasts, lack of alignment between sales and planning, outdated master data and neglect of market effects such as price adjustments or supply shortages. Organisational structures can also be disruptive when data control and forecast responsibility are spread across too many departments. A bow-tie analysis can help to systematically represent cause chains and the impact of forecast errors.

Controls and governance

Proven controls include regular forecast reviews with clearly defined roles, documented assumptions and continuous comparison of forecast and actual sales. Decisions on costly safety stock or capacity reserves should be tied to defined thresholds. For negotiations with suppliers, the following applies: the forecast is a planning basis, not a supplementary guarantee; legally binding commitments, such as take-or-pay obligations, should be formulated separately and with legal review.

Current developments: AI, sustainability and data integration

Forecast methodology is changing due to machine learning, better data availability and growing

sustainability requirements. Buyers should evaluate these trends without neglecting proven process discipline.

AI-supported forecasting models

Machine learning methods can incorporate external factors such as weather, economic indicators or customer behaviour and in practice significantly outperform statistical baseline models, especially with large volumes of data. Good data quality and transparent model validation remain prerequisites. AI does not replace expert validation by sales and procurement.

Sustainability and supply chain transparency

Forecasts are gaining importance for sustainability reporting and carbon accounting, as procurement volumes are an input for emissions calculations. Topics such as supply chain decarbonisation require reliable volume planning in order to bindingly agree reduction targets with suppliers. In export business, too, forecast changes must be incorporated into export processing, as preference rules and documents such as the EUR.1 movement certificate are volume- and origin-related.

Integration into digital system landscapes

Modern forecast processes thrive on the integration of CRM, ERP and supplier portals. Automated interfaces reduce manual effort and improve the currency of planning figures. This gives procurement more room to focus on strategic topics such as design-to-value or supplier development.

Typical metrics

Forecast accuracy: 70–90%

typical range for established series products; considerably lower for new products

Forecast bias: $\pm 5\%$

benchmark for acceptable systematic deviation; values outside this range indicate model or process errors

Forecast horizon: 12–18 months

rolling with monthly updates; longer for long lead-time items

Supplier forecast coverage rate: >90%

proportion of key suppliers receiving monthly forecast bands

Practical example

A medium-sized mechanical engineering company with around 300 employees had previously planned its requirement for drive components on the basis of its order backlog. During economic fluctuations, this repeatedly resulted in expedited purchases at premium prices and unnecessary stock of slow-moving items. Together with sales and planning, procurement initiated a monthly S&OP cycle with a binding consensus forecast.

- Introduction of a rolling 12-month forecast per product family with monthly alignment between sales and scheduling
- Definition of forecast bands for key suppliers: binding call-offs for three months, non-binding outlook up to twelve months
- Establishment of forecast KPIs (accuracy, bias) with monthly review and documented assumptions
- Cleansing of item master data and assignment of clear data owners for price, quantity and scheduling data

Conclusion

The sales forecast is far more than a sales exercise: it is the most reliable foundation for demand determination, supplier management and economical procurement. Its quality determines stock levels, expedited purchase costs and procurement's credibility with suppliers. What matters is less sophisticated algorithms than process discipline: clear responsibilities, regular alignment between sales, planning and procurement, and measurable forecast KPIs. Companies that establish forecasts as a binding, consensus-driven process noticeably reduce planning risks and create planning certainty for the entire supply chain.

Frequently asked questions

What is a sales forecast?

A sales forecast is the structured estimate of future sales of products or services over a defined period. It is based on historical data, CRM information and market assessments. In procurement, it serves as an input for demand determination and supplier planning.

How do you create a sales forecast?

Typically, statistical time series methods are combined with sales information from CRM and customer conversations. Within an S&OP process, the perspectives of sales, production and procurement are merged into a consensus forecast. Clean master data and regular reviews of forecast quality are essential.

How accurate can a sales forecast be?

This depends heavily on the industry, product and horizon. In practice, deviations for established, recurring products are often between 10 and 30 per cent, and considerably higher for new products or customer-specific systems. More important than absolute accuracy are bias-free management and rapid adaptability.

What is the difference between a sales forecast and demand planning?

The sales forecast estimates expected sales from a market and customer perspective. Demand planning derives the planning requirements from it, i.e. the quantities that actually need to be produced and procured, taking into account stock levels, batch sizes and lead times.

Which KPIs measure the quality of a sales forecast?

The most important KPIs are forecast accuracy (often expressed as MAPE) and bias as a measure of systematic over- or underestimation. In addition, downstream costs such as safety stock, expedited purchases and obsolescence are considered. The data quality of the underlying master data should also be monitored as a KPI.

How far in advance should a sales forecast be prepared?

Rolling forecasts covering 12 to 18 months with monthly updates are common. For long lead-time items, tooling investments or strategic capacity agreements with suppliers, 24 months or more are sensible. The horizon should be aligned with the longest procurement and manufacturing lead times in the product range.