

Quantifying the Benefits of Deploying SAP® Forecasting and Replenishment

Proof of Value Simulates Retail Operations and Pinpoints Potential Cost Savings

Retailers can use an innovative analytics service from SAP to quantify the potential value of using the SAP® Forecasting and Replenishment application – before deploying the software. Offered by the Center of Excellence Forecasting and Replenishment, this proof of value uses your historical order data to [simulate the likely economic benefits](#) of using the SAP software. The service provides metrics that help you quickly estimate how the forecasting and replenishment software can help reduce your fixed capital costs, improve data quality, and increase profitability.

ANTICIPATE YOUR ROI BEFORE YOU BUY – USING ANALYTICS SERVICE TO ESTIMATE THE VALUE SAP SOFTWARE CAN DELIVER

Successful retailers need to accurately understand, predict, and manage the delicate balance between inventory and customer service. SAP Forecasting and Replenishment helps you meet these goals by determining optimal inventory assortment, availability, and levels while automating replenishment and ordering processes.

But how can you be sure this software is a good investment for your business? To better quantify the value that the forecasting and replenishment software can deliver, the SAP Services organization created an innovative analytics offering.

With this service, consultants from the Center of Excellence Forecasting and Replenishment guide you through a proof of value. Consisting of two short workshops and deep data analysis, the study uses your company's historical sales data to simulate the ordering behavior of SAP Forecasting and Replenishment. At the conclusion of the simulation, you can use the metrics and other results to assess the potential economic benefit of using the software. It's the fastest way to anticipate your likely return on investment for the SAP software before deploying it.



EXECUTING THE SIMULATION

The service begins with a one- or two-day workshop at your location. Experts from the Center of Excellence meet with your team to determine which historical sales and stock data will best support the analysis and how much information to collect and analyze. Most retailers provide 6 to 12 months of master data on items such as:

- Articles
- Suppliers
- Sales and stock information
- Promotion specifications
- Historical delivery schedules

Evaluating Data Quality

Once the data is collected, SAP Services personnel analyze it to evaluate overall quality. They check for data quality issues such as:

- Negative stock figures
- Discrepancies between stock and sales values
- Missing or inconsistent prices

When the analysis is complete, you receive a comprehensive report that summarizes data quality and consistency. Where discrepancies exist, SAP consultants work with your team to evaluate data cleansing options and propose solutions that may optimize the analysis.



This analytics service uses your company's historical data to simulate the ordering behavior of SAP Forecasting and Replenishment, helping you [assess the potential economic benefit of the software](#) before deploying it.

Modeling External Factors

The service models any external influencing factors, such as calendar events and promotions. Including these factors in the analysis creates a more realistic forecast. If you decide to deploy SAP Forecasting and Replenishment, you can use the forecast model created by this process to substantiate your pilot installation.

Simulating Scenarios

The proof of value runs several scenarios that simulate the ordering behavior of SAP Forecasting and Replenishment. Depending on your business objectives, these scenarios can differ by parameter settings, modeling of external influencing factors, or general conditions such as delivery schedules and presentation stock.

The simulations are based on the data from one or more retail locations, such as stores or distribution centers. Each simulation extrapolates data for specific stock for a period of 6 to 12 months. The simulation runs for every ordering day during the simulation period.

Generating Measurable Results

The analytics service uses the simulated order and stock figures to calculate a variety of key performance indicators (KPIs). Commonly generated metrics include:

- Average stock
- Average stock value
- Average out-of-stock rate
- Lost profit

You can also request that the service calculate other KPIs that are essential to your business.

Assess Simulation Results

To demonstrate the potential value of using SAP Forecasting and Replenishment, SAP consultants generate a variety of simulation results and present them at a follow-up workshop.

REVIEWING KPIS

The results of the proof of value include KPIs that contrast your historical situation with the simulated results of using the SAP software. These aggregated KPIs graphically display your ordering behavior from different perspectives, including category, supplier, and selling class. Table 1 displays typical KPI results from an ordering simulation.

CALCULATING ECONOMIC VALUE

As part of the workshop, the SAP Services team from the Center of Excellence can help you calculate the economic potential of deploying the forecasting and replenishment software. You can compare and contrast your historical data with the simulated environment. By extrapolating results from the analyzed sample data to your retail operation, you can gain a better understanding of how projected improvements, such as any reduction in fixed capital or increase in profitability, will affect your business. Table 2 displays a sample projected financial value of using the SAP application.

Table 1: Sample KPI Results from Proof of Value

KPI	Customer's Historical Results	Simulated Results	Projected Improvement
Average stock per article	58.8 pieces	30.3 pieces	-48.5%
Average stock value per article	€78.48	€43.00	-45.2%
Out-of-stock rate	9.3%	2.7%	-6.6 percentage points
Average lost profit value per article and day	€0.118	€0.032	-72.1%

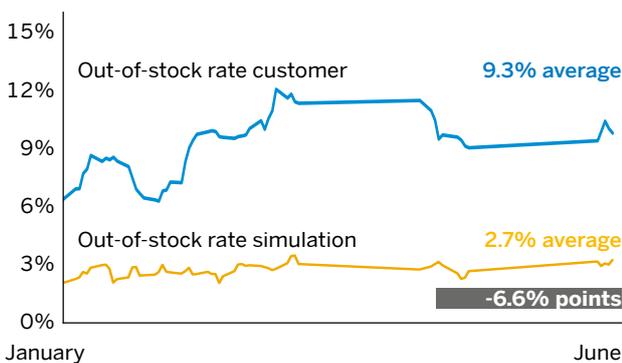
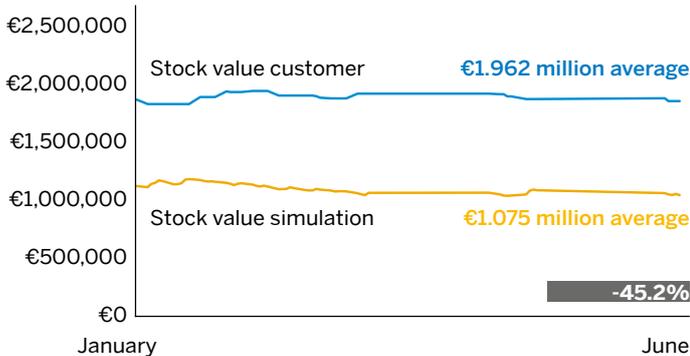
Table 2: Sample Benefits Projection

Quantification of Benefit	Potential	Calculation Based On
Annual reduction of inventory carrying costs	€70,960	Reduction of average stock value per article × 25,000 articles × interest rate 8%
Realistic annual increase in profit	€210,240	Reduction of average lost profit value × 25,000 articles × 312 days × 30%*

*This formula assumes that approximately 30% of out-of-stock products lead to lost sales.

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Figure: Sample Graphical Representation of Projected Results



The proof of value also generates graphical representations of your historical and projected ordering behavior as well as the economic value of using the SAP software, as shown in the figure.

QUANTIFIABLE VALUE DELIVERED BY SAP SERVICES

The proof of value clearly illustrates the potential benefits of using SAP Forecasting and Replenishment. By engaging this service, you can determine the actual value proposition and economic potential of using this software before deploying the application. With KPIs that compare simulations with historical data, the service also provides recommendations for improvement and a forecast model that can be used in your pilot implementation of the SAP software.

FIND OUT MORE

For more information about the proof of value or the Center of Excellence Forecasting and Replenishment, call your local SAP representative or visit us at www.sap.com/industries/demand_replenishment/index.epx.