

Smart Forecasting: Enabling Better Decisions Through Collaboration

Consumer goods & distribution



Demand forecasting is the nuts-and-bolts of supply chain management. Without it, businesses cannot hope to adapt to the uncertain macro environment of today. However, as technologies evolve, forecasting complexities have increased and with it the need for ensuring the best insights at speed for better decision making. Forecasting considerations have to be weighed out against growth plans as well as accuracy rates. In this scenario, large enterprise ecosystems will do well with advanced forecasting platforms that use cutting-edge technology to predict demands accurately and fuel long-term business plans.

TCS' Smart Forecasting solution enables better accuracy and decision making through a collaborative digital platform. It collects and processes data from all stakeholders/systems to generate demand forecasts that help businesses in their production planning, inventory planning and distribution planning activities. Designed with enterprise partner ecosystems in mind, this cloud-based offering uses machine learning-based models for rolling forecast and rule-based models for modification of forecast values at a monthly level.

Overview

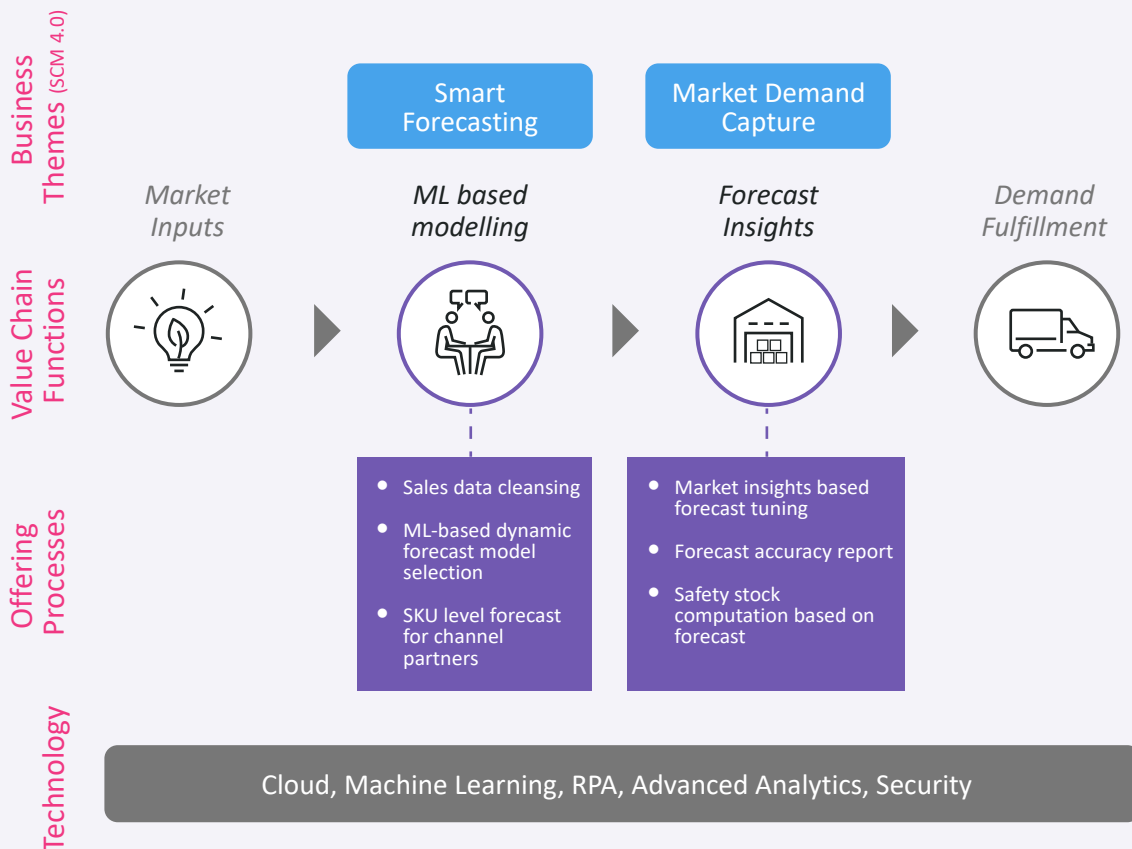
The volatile nature of the current market can be challenging for basic demand forecasting models to handle. Moreover, accuracy of predictions can be improved when all participating channel partners provide market insights. Forecasting solutions expand the scope of using more error metrics for selecting best models for predictions.

To this end, TCS' Smart Forecasting solution works as an enterprise supply chain data platform that can be easily extended based on future business scenarios and market fluctuations. This cloud-based offering can be integrated with existing systems to automate complex data collection processes and make predictive analysis effortless.

Our Solution

TCS' Smart Forecasting platform includes the following components:

- **Machine Learning-based Forecasting:** The solution is configurable to calculate demand forecasting at a daily, weekly or monthly frequency for channel partners. It can generate reports at an item or brand or category level for the selected frequency. The platform can generate forecasts based on the best fit error matrix and accurately predict demand across regions using a combination of machine learning and time series models. Data collection and preparation are done using historical sales data and correlation information.
- **Forecast for New Product/Variant:** The solution captures new product release and alternate stock keeping unit (SKU) correlation information to forecast for items which do not have historical demand data.
- **Market Insights from Partners:** The solution enables channel partners to capture market insights on all SKUs at any given frequency and modify forecast values to enhance demand sensing and forecast efficiency.
- **Workflow Approval-based Modification:** The solution provides for workflow-based approval for any modification for the machine generated forecast.



Benefits

- **Better Accuracy:** Businesses can improve their demand forecast accuracy between 10% and 50% based on the baseline forecast accuracy with machine learning based forecasting models.
- **Improved Collaboration with Channel Partners:** Offering channel partners complete visibility into supply chain helps generate improved inventory forecasts and allows for timely modifications and integration of unique insights into the market.
- **Enhanced Adaptability:** Weekly and monthly updates based on market intelligence and the predictive analytics engine helps sensing demand proactively and to adapt to changing scenarios with better decision-making.
- **Reduced Manual Efforts:** Automated processes replace manual tasks with rule-based actions and easily-configurable machine learning models.

The TCS Advantage

TCS has proven expertise in offering supply chain management solutions to CPG, retail, manufacturing and distribution, and high-tech industries globally. So, by joining hands with TCS, enterprises can leverage the following:

- **Modular, Scalable and Configurable Solutions:** Based on ready-to-deploy technology components, our solution can lend itself to any logistical or planning requirement
- **Contextual Knowledge and Expertise Across Functional Areas:** We have a strong team that is experienced and knowledgeable with a solid industry background, rich contextual knowledge
- **Flexible Solution:** Our solution is designed to be accessible anywhere and on any device. It has the flexibility of integration with multiple systems and a modular architectural design
- **Customer-friendly Delivery Model:** Our client-first mentality ensures that our solutions drive business outcomes beyond traditional efficiencies

Contact

Visit the [Consumer Goods & Distribution page](#) on www.tcs.com

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About Tata Consultancy Services Ltd (TCS)

Tata Consultancy Services is a purpose-led transformation partner to many of the world's largest businesses. For more than 50 years, it has been collaborating with clients and communities to build a greater future through innovation and collective knowledge. TCS offers an integrated portfolio of cognitive powered business, technology, and engineering services and solutions. The company's 469,000 consultants in 46 countries help empower individuals, enterprises, and societies to build on belief.

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