

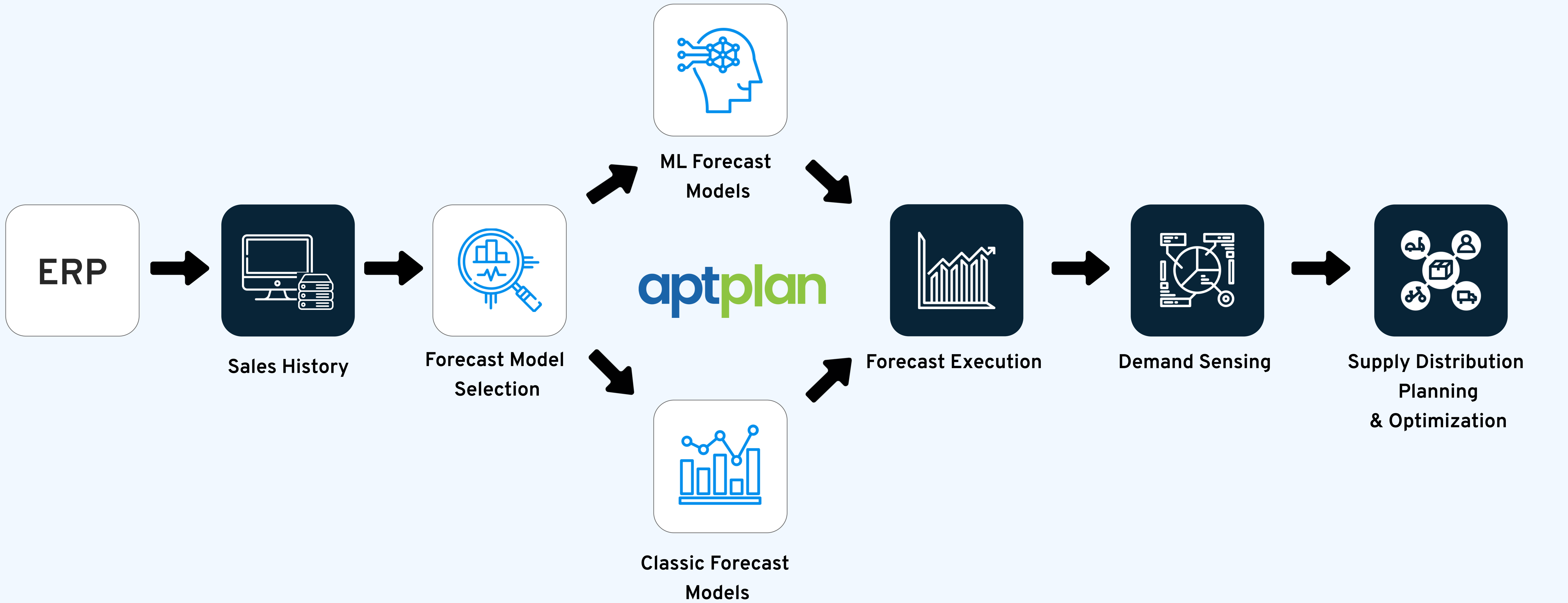


Today’s dynamic business environment poses new challenges to the traditional way of handling supply chain planning. Accuracy of forecast, highly dynamic demand environment, use of right forecast models, internal or external parameters that influence the planning demand fulfilment gaps, inventory cost overruns, and manual tasks are some of the major issues that pose challenges to the traditional supply chain planning techniques.

An Intelligent Supply Chain Planning Solution is the need of the hour, which enables your system to ‘learn’ the historical demand behavior and predict sales demand with greater accuracy. With evolving technologies, it is possible today to use AI/ML techniques to process a massive amount of data and create more accurate forecasting models. **aptplan** builds upon traditional demand forecast and enhances the accuracy of prediction by modeling other internal and external factors that influence sales demand. It consists of 3 main modules; *Demand Forecasting, Demand Sensing, and Supply Distribution Planning* for accurate demand forecasting and supply planning.

Demand Forecasting

The Demand Forecasting module uses a combination of both classical statistical forecasting techniques and modern ML/AI algorithms to generate accurate long-term forecasts. The **Auto modelling functionality** and **Hyper Parameter** optimization ensure the system selects a ‘best-fit’ forecasting model empowering citizen demand planners to create accurate

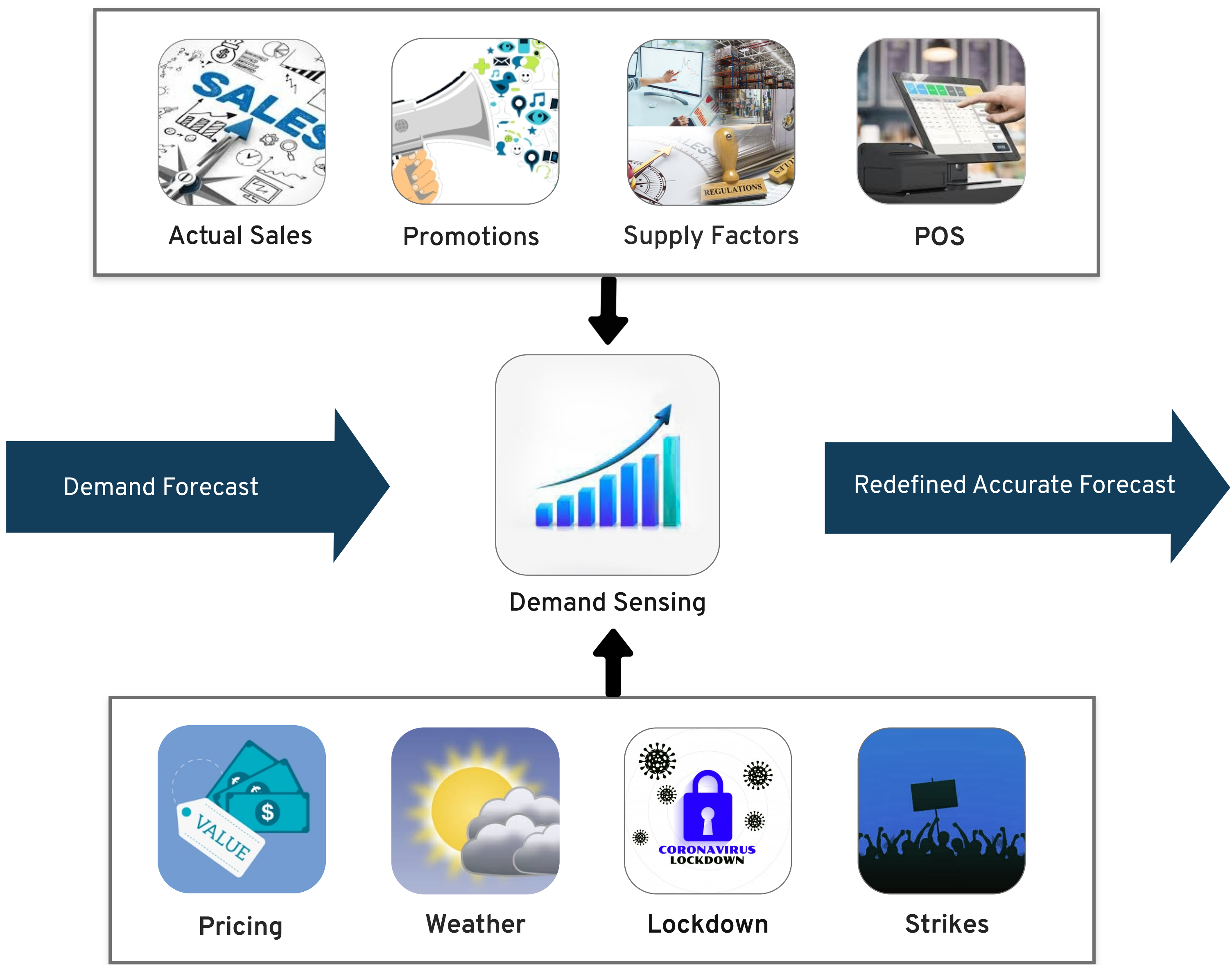
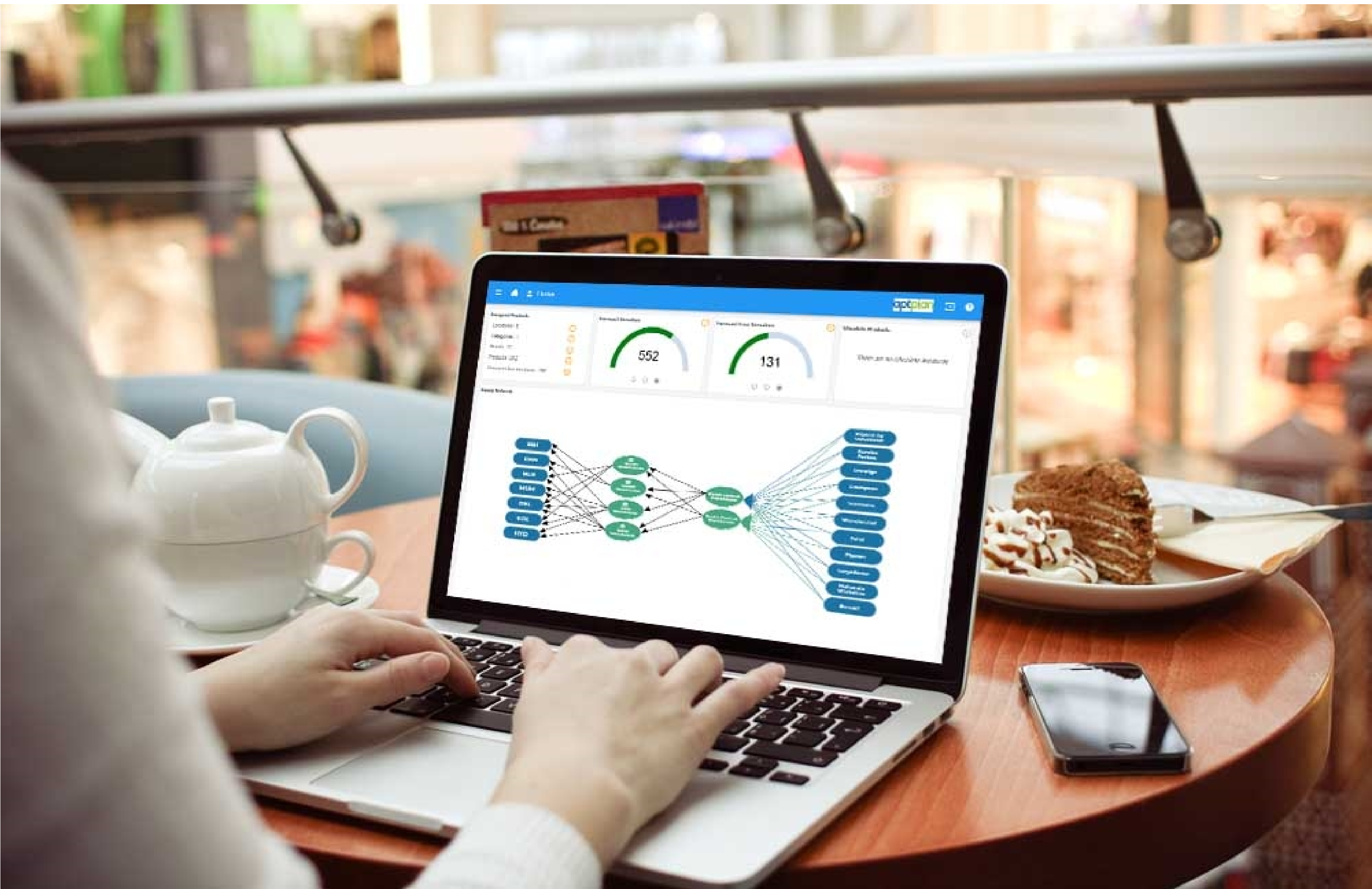


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|-------------------------------------|---------------------------------|----------------------------------|
| Accurate Demand Forecast | Optimized Inventory | Auto Modelling & Hyper Parameter |
| Demand Sensing with Market Insights | Empower Citizen Demand Planners | Higher Demand Fulfilment |

The Solution enables automatic selection of a 'best fit' forecast model

Advanced AI/ML algorithms in addition to traditional techniques:

- ARIMA
 - Multi-Linear Regression
 - First and Second - Order
 - Holt-Winters Model
 - Moving Avg
- Facebook Prophet
 - SARIMA
 - Croston Model
 - Deep AR+
 - Weighted Mov Avg



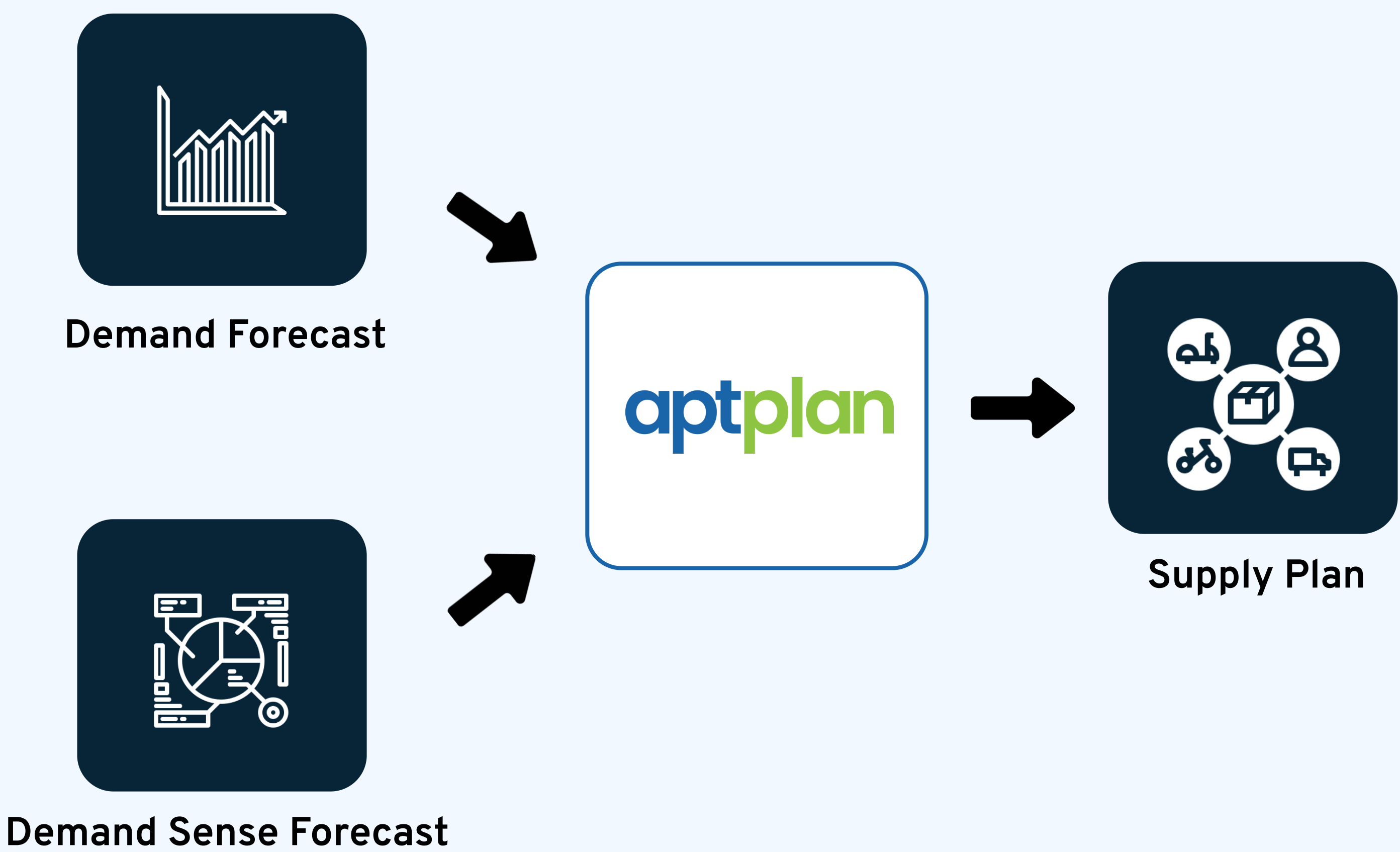
Demand Sensing

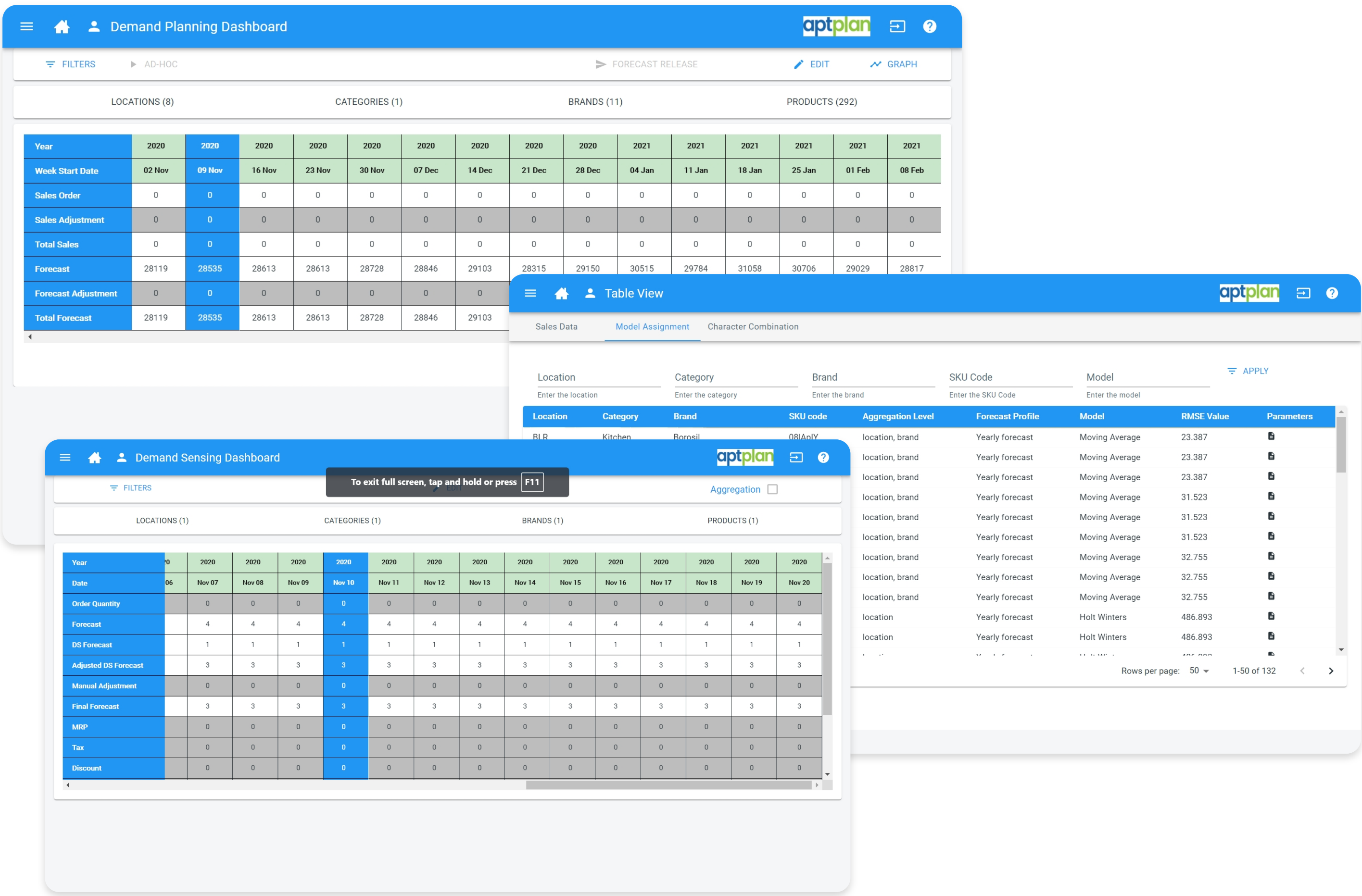
The Demand Sensing module refines the long-term forecast over the immediate future horizon using various internal, external and supply variables that might have a significant impact on sales. Historical data on sales, forecast data and other variables such as promotion, price, supply factors, Point-of-Sales, weather events, strikes, lockdowns etc. are used to train an AI / ML model.

The trained AI / ML models can then be used to predict sales demand with higher accuracy over the near immediate future horizon on a near real-time basis. It uses NLP technologies to collect a wide variety of unstructured data and convert into structured format for use in ML /AI modelling.

Supply Distributed Planning

The Supply Planning module uses the refined accurate forecasts from Demand Forecast and Demand Sensing modules to generate precise supply-distribution plans throughout the supply chain network. Advanced functionalities, such as Dynamic Safety Stock and Re-Order Inventory Level Calculation enable supply planners to maintain a lean inventory level with a higher rate of demand fulfilment.





A user-friendly interface allows planners to review, simulate, and modify system-generated results enabling flexibility and collaboration across organizations. The solution is deployed on a cloud platform like AWS or Azure for easy management and scalability and can be customized for an on-premise deployment based on requirements. The solution also enables Sales and Operations Planning with Advanced Augmented Analytics supporting voice-based search and simulation, auto-recording of Minutes of Meeting’, and collaboration.

Powered with AI/ML Algorithms, processes & routines to handle internal & external influential parameters, aptplan delivers highly accurate demand plans for better business and decision making.

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| Easy Integration with any ERP | Integrated planning data models with data mapping | Auto Forecast with complete batch scheduling | Simulation and What-if Analysis for Scenario Planning |
| AI/ML Algorithms and Analytics | Managing Internal and External Factors that influence the sales | Turbo Data Preparation for unstructured external parameters | Post Planning Analysis |

Versatile deployment platform options for a new-age Supply Chain Planning solution, highly scalable to support business growth

On-Premise | IBM Power | AWS Cloud | MS Azure Cloud | Google Cloud | Vertica | Any Database

Industry specific supply chain planning solutions - Rapid configuration and implementation tailored to meet your requirements. Quicker deployment using our data and AI accelerators.



Retail / CPG / E-Commerce



Distribution



Manufacturing / Supply Chain / Industrial Automotive



Chemical / Pharmaceutical



Food Processing



Transport & Logistics



Natural Resources