Oracle Value Chain Planning
Demantra Demand Management

Is your company trying to be more demand driven? Do you need to increase your forecast accuracy or quickly converge on a consensus forecast to drive your supply chain planning processes? Do you need to improve your management of product lifecycles, promotions, and other events? Oracle® Demantra Demand Management enables you to sense demand real time, improve forecast accuracy, and shape demand for profitability. The result is a demand-driven organization with higher service levels and sales, more satisfied customers, and lower inventory and distribution costs.

KEY FEATURES

- Multi-dimensional data modeling with flexible data hierarchies for up-to-date demand visibility and one-number planning
- Ability to plan for Configure to Order (CTO) products with multiple optional or mandatory sub-components, tracking interaction between items and components
- Flexible time buckets, units, and currencies to address operational and financial planning needs
- Specialized functions for service parts forecasting (handling intermittency)
- Superior Bayesian forecasting engine to handle multiple, simultaneous causal factors
- Deploy stand-alone or leverage out-of-the-box integration with Oracle E-Business Suite, Oracle PeopleSoft, and Oracle JD Edwards EnterpriseOne

KEY BENEFITS

- Improve forecast accuracy
- Drive consensus and accountability
- Enable best practices

Respond to demand variability and uncertainty

To respond to uncertain and variable demand you need to ensure that all demand signals are captured at the right level of detail, leverage that demand and its underlying correlations and factors that influence the demand patterns, make sure that all key stakeholders are involved and accountable on a continuous basis, and make that forecast actionable and drive all downstream planning processes. Oracle Demantra Demand Management enables you to arrive at a single, precise consensus forecast. A consensus plan built from a more accurate forecast aligns all your organizations and users, enabling you to be more demand-driven. Built-in analytics and adaptable business process automation capabilities enable a wide range of day-to-day decision making with real-time demand intelligence.
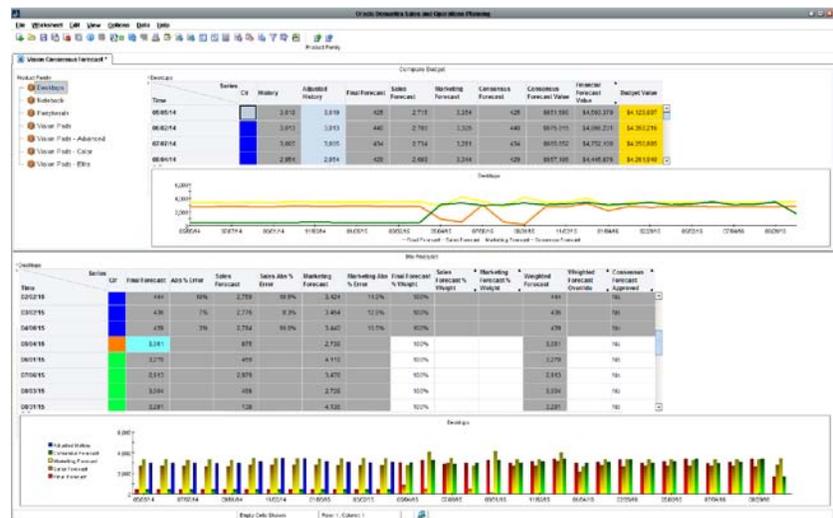

Figure 1: Demantra Demand Management – Demand Planner Workbench

Sense demand closer to the point of consumption

Oracle Demantra Demand Management enables you to sense demand from multiple data sources including point of sales and syndicated data, and analyze demand data at various levels to understand the detailed behavior of demand. Such detailed understanding of origin and relative contribution of various demands both improves your ability to predict the detailed behavior of you demand and enables demand shaping activities – programs and events designed to stimulate sales and grow market share for individual products or groups of products.

Improve forecast accuracy via advanced analytics and improved consensus

Better real time demand insight is only useful if you can translate it into a more accurate forecast. Oracle Demantra Demand Management and its patented Bayesian analytical forecast engine generates the most accurate forecasts possible. Automated algorithms automatically combine nine industry-standard and proprietary forecasting models, mixed in an infinite number of combinations to handle a wide range of product life cycles and demand patterns including intermittent demand. This produces a forecast that accommodates seasonality, promotions, trends, and other causal factors simultaneously. Causal correlations and other analytic parameters are automatically maintained at appropriate hierarchical levels where statistically relevant and adequate data points are available. Self-learning and self-adapting algorithms combine the different models to maximize predictive accuracy (rather than historic fit) and to respond to changing market conditions. Oracle Demantra Demand Management hides statistical complexity from demand planners ("PhD in a box") and managers, yet can be extensively modeled by statisticians as required for your business.

Oracle Demantra Demand Management provides a robust workflow driven collaboration paradigm across all constituents. Each participant gets the information tailored to their needs to be able to make key decisions. The system keeps an audit trail of all changes, notes that capture key decisions and assumptions, and generates exceptions to ensure responsiveness.

Integrated with Oracle® Demand Signal Repository to leverage POS data

Demantra Demand Management can receive point of sale data directly from Oracle Demand Signal Repository, enabling a real-time demand sensing paradigm that captures demand signals closer to the point of consumption.

Collaborate with your key customers – Collaborative forecasting

Demantra Demand Management enables easy and effective collaboration with your customers enabling you to improve your prediction of demand. Customers can be provided secure access to only their data for more efficient collaboration. When deployed with Oracle® Collaborative Planning you can enable a collaborative forecasting process when publishing sales forecast data to key suppliers and contract manufacturers.

Comprehensive exception management and audit trail

Demantra Demand Management also enables a high degree of automation of the evaluation of demand data with tools like alerts, flexible worksheets, color coding to highlight areas of interest, all enabling a management by exception driven process to enable you to efficiently and effectively monitor and respond to customer demand. Configurable business rules enable users to spot trends, identify forecast variances, and respond to other demand stream changes easily and efficiently. All adjustments are kept in a comprehensive audit trail as well as on-line notes to document assumptions and decisions made during the demand management process complete with digital signatures for accountability.

Flexible configuration to support your business processes

Demantra Demand Management is built on a flexible, multidimensional data architecture that gives users slice and dice analytic capabilities along any dimension and level of granularity. All departments can organize the data in hierarchies, currencies and units of measure so that each has their own view of up-to-date plans, while sharing the same granular base data. Demantra Demand Management serves as the central system for automating all of your demand-driven business processes by providing personalized dashboards with tasks, alerts, and KPIs; configurable spreadsheet-like user-specific worksheets with tables and graphs; and fully configurable, role-based workflows to automate collaboration and the resolution and escalation of problems.

Easily extend to other regions and lines of business for global deployment

Demantra Demand Management enables you to bring in, and distinctively maintain, demand data from multiple ERP source and legacy systems. Different regional or business line users individually or as a group can selectively access the data specific to their region, business line, or responsibility. The users do not require to be connected to the Internet continuously and can work off-line as needed.

Shape demand with promotions and new product introductions

You can quickly add new products and forecast their demand based on the sales history and characteristics of 'like' products. New products can be introduced in selective channels and locations first and then expanded globally in phased manner. You can manage the introduction lifecycle of new products, as well as the end of life and associated cannibalization of superseded products. Oracle® Demantra Advanced Forecasting and Demand Modeling, an option to Oracle Demantra Demand Management, can extend the functionality to statistically model the forecast shape of new product introductions.

Oracle Demantra Advanced Forecasting and Demand Modeling can also extend the demand shaping functionality to promotions planning and enhanced causal factors and attribute-based analysis.

Accurately forecast spare parts and impacts of new service level agreements

Oracle Demantra Demand Management's supports powerful forecasting techniques and models to improve forecasting of spare parts for Service Operations. It supports population and failure rate based forecasting, usage based forecasting, composite forecasting, supersession chain and chain history of multiple revisions, forecasting of new service level agreements, both modeled at customer and customer site level, forecasting based on unique parts characteristics, returns forecasting, and forecasting based on causal factors. To improve spare forecast accuracy, you can leverage key forecast methods such as moving average, single exponential smoothing, Holt, integrated causal exponential model (Winters enhanced), regression with seasonal causal, Croston's for intermittent, regression with seasonal causal for intermittent, multiplicative Monte Carlo regression with seasonal causal for intermittent demand, or select 'expert mode" to automatically select the best blended statistical method for every service parts, especially useful when scaling to handle large volumes of parts.

Integrated performance management

Demand Management calculates a wide variety of key performance indicators (KPIs) that highlight the true effectiveness and efficiency of your planning process and its results. These KPIs include statistical measures of forecast accuracy such as mean absolute deviation (MAD), mean and absolute percentage error (MAPE), and weighted MAPE. Tracking signals and measures of forecast bias are also calculated and combined with extensive reports and exception alerts to show you areas for improvement and to let you track the benefits of continuous improvement programs.

Enable key decision makers to analyze forecast and accuracy

Oracle Demantra Demand Management is also fully integrated with Oracle® Advanced Planning Command Center to provide key supply chain decisions makers the capability to analyze output from your demand management decisions, together with data from other Value Chain Planning products, for example in their sales and operations planning "executive review" dashboard. All of the data used for analysis in Demand Management can be shared with the rest of the organization in self service dashboards. Oracle Advanced Planning Command Center enables you to compare key performance metrics for your business strategies and alternatives as represented in all your plans.

Realize additional business value through pre-built integration

Oracle Demantra Demand Management is part of Oracle's Value Chain Planning solution and provides synergy when used with other products. For example, Oracle Demantra Demand Management provides both a consensus demand forecast and a measure of forecast error to Oracle® Inventory Optimization for calculation of inventory postponement strategies. It also provides demand forecast to drive your supply planning in Oracle® Advanced Supply Chain Planning or Oracle® Rapid Planning, and to also drive your supply network design and risk management in Oracle® Strategic Network Optimization. It can also provide forecast for specific customer service level agreements to Oracle® Service Parts Planning and publish forecast to trading partners via integration with Oracle® Collaborative Planning.

Extreme performance for the demand-driven value chain

Planning your complex value chain has always been challenging, and the degree of difficulty keeps increasing. Trends in business and economic conditions as well as emerging technology have added to the complexity. The pressure increases to plan for more complex value chains, more frequently, to a greater level of detail, and to make more informed decisions. Oracle in-memory processing provides un-paralleled performance and scalability to enable the next generation of interactive planning, simulation, and analysis to dramatically improve the performance of existing planning processes and enable new processes that were not previously feasible. This provides a unique value proposition in terms of reduced planning cycle time and data latency; increased application availability and transaction scalability; increased user satisfaction via improved response time; improved decision making with improved planning analytics; and, lower total cost of ownership and faster time to value.

VALUE CHAIN PLANNING — A COMPLETE SOLUTION

Oracle's Value Chain Planning solution enables companies to efficiently design, plan, and service their value chains from factory to shelf. Its componentized architecture enables you to start with any product and expand to other areas at any point in time. The Oracle Value Chain Planning architecture leverages the scalability and security of Oracle's Database and Fusion Middleware technology and can be deployed as a single instance with Oracle E-Business Suite, or integrated with other systems. Whether you implement one module or the entire product solution, Oracle Value Chain Planning enables you to share unified supply chain planning information across the enterprise so you can make informed decisions faster.