

Sales & Demand Forecasting

Sales Forecasting and demand forecasting for better control of inventory and staffing

About Client

- Pulp and Paper manufacturing company sells a wide variety of products to meet the growing global demand for paper, tissue, and packaging
- Operating for 48 years. Today, Asia Pulp & Paper (APP) Sinar Mas markets its products in more than 150 countries across six continents.
- Operating across Indonesia and china producing over 20 million tons per annum

Approach and Deliverables

- Developed forecasting framework using 'bottom up' forecast (Prediction) and 'top down' forecast (time series forecasting)
- Performed outlier analysis to check the abnormal patterns
- Analysed sales patters of each article codes (products), Zones, based on the historic data trend and seasonality
- Implemented various smoothing and regression methods with Mean absolute error as evaluation metric

Business Drivers

- Ability to forecast by periods (weekly, fortnightly, monthly, quarterly), span of products, measures to forecast (sales quantity, profitability)
- Forecast rollups by article code, zone and category

Outcomes/Benefits

- 10% increase in forecasting accuracy resulted in increase of profit margin by 2%
- Better control of Inventory and Staffing
- Automated solution design – Dashboards are updated automatically

