



Al-unmanned convenience store in SG









Dashboarding

Four dashboards were created to provide an overview and detailed understanding of store performances. **Performance metrics** included sales revenue, gross profit, average transaction value, and inventory depletion.

Forecasting

Applied forecasting model for each product category at each location with a forecast period of 6 months. Results were aggregated monthly, plotted via ggplot, and checked against prior sales knowledge to determine whether to follow the forecasted demand.

Product Bundling

Pareto's 80/20 rule was used to narrow down product scope.

Association rules from market basket analysis identified complementary products for product bundling strategies.

Insights and Learning Points

Applying relevant knowledge and skills learnt from SMU courses such as **Data Modelling and Visualization** to create effective dashboards and **Statistical Programming** for R studio





3

Deeper understanding of important metrics used by store owners in the retail industry, and how different **metrics, trends and visualizations can be analysed to derive decisions**

Importance of **communication, teamwork and time management** when solving client's business problem and formulating solutions tailored to their specific needs

Software and Data Visualisation





@SOAREADABILITY

CREDITS: CHIA JUN XIAN EDMUND, HUANG XIN TING CHLOE, LOW XIN YING, ONG SHI TING, LISA LO SHU HUI, PICK&GO, PROF. BENJAMIN, PROF. CLARENCE