

DATA GLACIER - RETAIL FORECASTING PROJECT

WEEK 10

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1. Problem description:

A large beverage company operating in the Australian market faces challenges in demand forecasting for its wide range of products. The demand is subject to fluctuations influenced by various factors, including holidays, seasonality, and promotional activities. The company is currently using an in-house forecasting software, which often produces unreliable and nonsensical forecasts. In pursuit of more accurate and efficient forecasting, the company aims to explore the potential of AI/ML-based solutions to replace their existing in-house system.

2. EDA performed on the data:

During exploratory data analysis on the dataset, it was observed that there are six products, and SKU3 has the highest sales among them. There is a statistically significant difference between sales with and without price discount. The highest sales were observed in products with a discount in the range of 40-50%. On the other hand, sales during the COVID period did not show a statistically significant difference from regular times.

3. Final recommendation:

The dataset has undergone cleansing. In the feature engineering stage, new features will be added to the dataset, and ML models such as LightGBM and Decision Tree will be employed for predicting sales.