



Background

DrinkAid's **manual monitoring** of financial metrics has resulted in delayed detection of critical issues:

- **Sudden revenue drops** caused by unplanned discounts
- **Increased marketing expense** applied by the platforms

Problem Statement

How can DrinkAid utilise its **revenue and advertising** data insights to minimise revenue losses and optimise business expenditure?



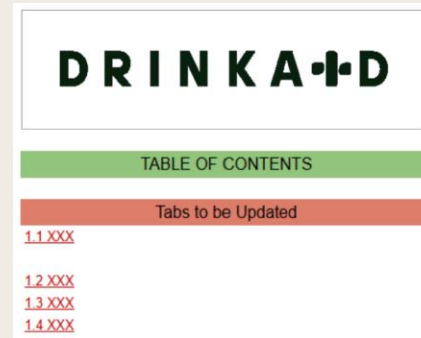
Project Objectives

1. Automated data processing for future updates
2. Automated dashboarding
3. Anomaly detection
4. Forecasting of Sales, and Return on Advertising Spending (ROAS)

Our Approach & Key Findings

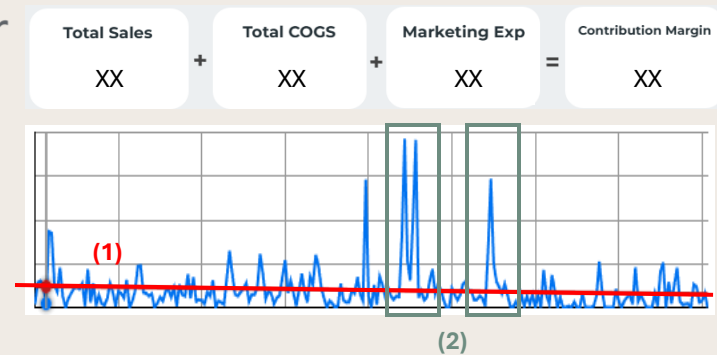
1 Automate Data Processing

- **User-friendly** and intuitive interface on Google Sheets
- Automated data processing and dashboard allows **seamless** integration of data input
- **Centralised** data warehouse for all financial metrics and analysis used in Dashboarding, Anomaly Detection and Forecasting
- Preserves historical records while maintaining a flexible, **future-proof** architecture for continuous data updates.



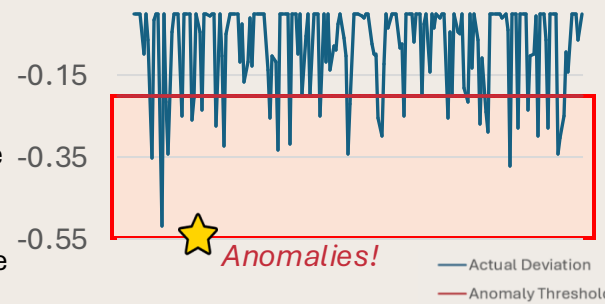
2 Dashboarding Looker

- Use of Looker Studio ease of connection to Google Cloud
- Provides breakdown of **contribution margin**
- Allows client to easily view **(1) sales trends (2) peaks in sales**
- Provides client with key insights into **marketing campaigns**



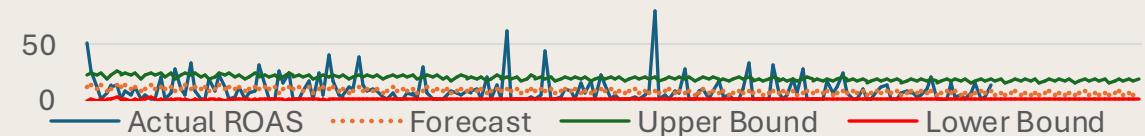
3 Anomaly Detection

- Compare current day sales per order to 7-day moving average
- **Key Use:** To identify & alert DrinkAid of sudden revenue drops to minimise revenue loss
- **Key Findings:** Identify patterns of **sudden unexpected discounts**, so that preemptive action can be taken to prevent losses



4 Forecasting of Sales & ROAS using Seasonal Indices and Dummy Variables

- Shows **historical trends** in data that gives DrinkAid valuable insights
- Putting RMSE into forecast **reduces uncertainty**
- **Different independent variables** like how days and weeks are incorporated
- Weekly models should be considered because of the **reduced "noise"** in the forecasts



Recommendations

To improve predictive model accuracy, DrinkAid should prioritise ongoing data collection and refinement—analyse and integrate fresh data regularly to enhance forecasts and strategic decisions.