Customer Data Analytics for a Retail Company Looking to Improve Marketing Strategies

Introduction

One of the western US's largest retail chains with over a few billion USD in revenue and more than 300 premium convenience stores across the country having a worldwide presence.

Need

The client wanted a solution to get insights into customer behavior & loyalty analysis for better marketing strategies. The client had retail transaction data including some customer information which had to be cleaned and de-duplicated to get any customer's lifetime value and total revenue sliced across various customer and retail demographics. This data was used to run various A/B loyalty schemes and we could measure results to form a successful loyalty program that can be presented to other joining franchises as a template.

Solution

Contata mined the customer and transaction data and provided a set of dashboards solution in which all the retail store demographics (geo, size, staff, etc.), as well as transactional data, were collected into Google Cloud Storage as nightly batch data. This data was mapped to staging tables in BigQuery and were moved to a data mart after clean-up and transformations. We ran de-duplication scripts on top of this data mart and assigned every unique customer and household a golden key. The solution included:

*   And overall solution architecture design
*   ETL solution using Google Cloud Dataflow
*   Cleaning/Prep. using Cloud Dataprep
*   BigQuery design and development
*   ML model development and training
*   Google data studio-based reports

The propensity analysis ML model on the clean data helps the marketing team in discovering leads that should be preferentially targeted for cross and up-selling to boost average customer spending per visit.

Industry

Retail

Our Services

Data Governance

Customer Analytics

Reporting/Self-Service BI

Technology Stack

Data Studio

Data flow

Team City

BigQuery

Machine Learning

Google Cloud- Storage

Power BI

DataPrep

Advantage

*   Great reduction in marketing cost with a better conversion rate.
*   Greater BI Insights to track customer lifetime value (CLTV).

*   Templated customer spending model to open up more franchises based on actual data reports and trends.
*   Clean and refine insights of historic data.

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