

Retail Accelerator Report



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Retail Accelerator Report

1. Introduction

Retail Accelerator Report has been designed after extensive research with retail industry experts. We have incorporated industry-trending retail KPIs and thoughtful insights in this report. We have built a standard reporting structure for all the retail sub-functions viz., Sales, Products, Customer, Inventory, Shipping, Returns, and Sales/Profit Forecast, with a functional coverage of 45-60%*.

Key features of Retail report:

- Quick to plug in the Customer Data Model with pre-built Data Model by mapping key dimensions and measures (metrics) using Power BI Dataflows
- In-built accurate Sales and Profit predictions using SARIMAX (Seasonal Auto-Regressive Integrated Moving Average with exogenous factors) and ARIMA (Autoregressive integrated moving average) models
- Report themes used in the report is easily configurable via the configuration file that comes with the report
- Basket analysis (provides insights on which products could be bought together) using Apriori Algorithm
- Customer profiling using RFM analysis

RFM (Recency, Frequency, Monetary) analysis is a marketing technique used to quantitatively rank and group customers based on their recent transactions' recency, frequency, and monetary total to identify the best customers and perform targeted marketing campaigns.

We have brainstormed with our team and produced a list of dimensions and fact tables and the fields required for this use case. We have created sample data in Excel files, which are used as the source file for this report. This report focuses on sales across the US and Canada regions. The Power BI data model is built using Star schema.

The report has seven dashboards namely- Sales, Products, Customer 360, Inventory, Shipping, Returns, and Forecast.

2. Types of Dashboards

Sales Dashboard

The **Sales dashboard** provides insights on Sales summary, Sales performance, Store performance, and Sales Forecast in the US and Canada regions.

Key Insights:

- Indispensable Sales KPIs like Revenue, Gross Margin, and Products Sold
- Sales by Category, Customer Types, Sales and Target by Month, Top Sales by Products
- Region-wise Sales
- Sales Forecast by Order Year

Products Dashboard

The **Products dashboard** provides Product Summary, Products Overview, Products Trend, Reordered Products, and Basket Analysis insights.

Key Insights:

- Product Cost, Product count by Age and Region
- Total Sales, Profit, and Order Count by category
- Products by “State and Region” category
- Orders by “Product” subcategory
- Reordered Products by subcategory
- Returned orders by Hub Point and City
- Basket Analysis represented by Antecedents and Consequents. The chart shows the confidence level of the products (antecedents and consequents) that are purchased together

Customer 360 Dashboard

The **Customer 360 dashboard** provides Customer Summary, Customer Profiling, RFM Analysis, and, Demographics.

Key Insights:

- Trending Customer KPIs like Customer Retention Rate, Customer Lifetime Value, Churn Rate, Sales with Customers, and Average Revenue per Customer
- Customer count KPIs like Recurring Customers, Customer Count, and Active Customer Count
- Customer Retention Analysis study from new customers, returning customers and lost customers
- Customer Count and Active Customer Count by Segmentation (Consumer/Corporate)
- Customer count by Sales Bins (Range of Sales Amount)
- RFM Analysis of customers by Recency, Frequency, and Monetary sales
- Sales and Profit by age and gender of the customer

Inventory Dashboard

The **Inventory dashboard** gives a graphical representation of the store inventory health over a stipulated period. It also provides a tabular representation of the stock purchased and products remaining in the inventory.

Shipping Dashboard

The **Shipping dashboard** highlights key shipping KPIs and Visuals.

Key Insights:

- Shipping TAT (Turn Around Time)
- Total Shipping cost
- Total number of orders shipped
- Shipping cost by Ship Mode (Ship modes: Standard Class, Same day, First class, Second class)
- No. of orders and shipping TAT by Order Priority (Priority: Medium, High, Critical, Low) and Ship Mode

Returns Dashboard

The **Returns dashboard** provides the following key insights:

- Total number of returns

- Returned products
- Returned quantity
- Total Returned Amount
- Top 10 Returned Products
- Returns by Product Category
- Line graph showing Returned Orders Vs Total No. of Orders by Order Year Month

Forecast Dashboard

The **Forecast dashboard** shows the profit and prediction by Order Date.

3. Conclusion

This report is a sample highlighting our capabilities. We also possess experience working with Power BI Dataflows, complex data transformation using DAX queries, implementing security, performing master data management, and working with different Power BI data sources like Salesforce, Databricks, etc.

We have a team of high-performing data engineers and data scientists with python and machine-learning capabilities who have helped in building this report for us.

Please visit our website at, <https://www.preludesys.com/power-bi-reporting/> and check out our LinkedIn profile. We are open to cooperation and are ready to work on executing new projects.