Project Final Report

Group 3: Lusha Ji, Sen Lin, Jingjing Wang, Harry You, Yufei Zhou

Company: Kroger

Abstract

In this project, we developed a data warehouse for Kroger and transferred all data into SQL Server database. Then we used Pivot Table in Excel to analyze data and showed sales of products by various summarization of dimensions .Our data warehouse has a fact table: sales, and three dimensional table: Products, date and location, so Kroger knows their sales by summarization of different date and stores.

Business Scenario

Data warehouse can meet many business needs of Kroger: Need a strategic information for the company; Understand the demand of each category in each quarter; Know what brand of each category of products sells most and least; Know the different demand of customers in each city. We defined sales for Kroger by store, county, and city in Ohio for each product, category, department and brand for each day, week, month, quarter in three years.

Data source:

[https://www.kaggle.com/agatii/total-sale-2018-yearly-data-of-grocery-shop/version/1#Day\_sell\_24\_12\_18.csv](https://www.kaggle.com/agatii/total-sale-2018-yearly-data-of-grocery-shop/version/1" \l "Day_sell_24_12_18.csv)

We did not find sales of each brand of products and sales of each store so we made them up.

Why data warehouse

There are three reasons we used data warehouse for the project. First, data Warehouse will integrate multiple sources so that users can make decisions based on ALL of the data. Second, data throughout the organization is standardized and stored in the same format so all departments are making decisions based on uniform data. Third, If you have volumes of historical data that need consolidation, a data warehouse makes for easy access in a common place, with the ability to scale in the future.

Methodology

Result

Conclusion

We developed four reports that show sales in different hierarchies, which will be very helpful for Kroger to make next strategic decision. Data warehouse is a great tool to provide strategic information.