

E-Commerce Data Project

The dataset of this E-commerce project is from an online store, which includes product information and customer transaction records from 2016 to 2018. The goal of the company is to improve sales. In this project, we're supposed to find out the online shopping behaviors of the customers and make marketing suggestions for the store to increase the customers' life-time value to the company.

The dataset has 7 tables, covering from customer, order transaction to the product information:

1. **Customers:** This table contains customer ID, full name, and the account creation date;
2. **Orders:** This table contains order-level information, 'fulfilled' status means completed;
3. **Order Items:** This table contains items info of each order, one order can have multiple items;
4. **Products:** This table contains product-level information;
5. **Products_skus:** 'sku' represents stock keeping unit, which is used to track inventory in the store;
6. **Traffic:**
 - a. *Page_views*: each time a user visits a web page, it is called a page view;
 - b. *Sessions*: a session is a group of user interactions with your website that take place within a given time frame;
 - c. *Avg_session_in_s*: average seconds in one session
7. **Transactions:** Status success indicates the transaction was completed.

The objective of is to explore the dataset to answer the following questions:

1. How is the trend of website traffic and the number of orders over time? Is there any correlation between the orders and the website traffic?
2. How's the sales of the different products over the seasons or months? What are the popular products? Is there any correlation between different products?
3. How's the sales of different products with discount? Does the discount promote sales?
4. Dig more into the data and gain more insights, you can choose some E-commerce metrics or analysis (e.g. churn rate, conversion rate, retention rate, RFM analysis). Based on the insights from all the above questions, do you have any suggestion for the growth of sales?