Group Name： DATA ALCHEMISTS

Team Members:

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Specialization: Data Analyst

Problem description

We are determined to help XYZ Bank improve its cross-selling strategies and enhance customer engagement. The bank offers a wide array of financial products and services, including savings accounts, credit cards, mortgages, loans, and investment options. However, we've observed that many of our customers have limited product adoption and aren't fully utilizing the range of services available to them.

To tackle this challenge head-on, we plan to implement customer segmentation techniques to gain deeper insights into our customer base. By dividing our customers into distinct groups based on their demographics, financial behavior, and product usage patterns, we hope to identify specific customer segments that are more likely to use products and services. Armed with this valuable information, we aim to create personalized marketing strategies and tailored cross-selling initiatives to boost customer satisfaction and encourage higher product adoption.

As part of our data analysis team, the objective is to thoroughly analyze the extensive customer dataset provided by XYZ Bank and conduct a comprehensive customer segmentation analysis. The dataset includes detailed information about each customer, such as age, gender, income, transaction history, product holdings, and tenure with our bank.

Business understanding

This project's primary goal is to suggest what action the bank can take to increase cross-selling by focusing on customer satisfaction and action.

1. Enhanced Customer Loyalty: Satisfying customers fosters loyalty, encouraging them to return for future purchases and strengthening their long-term relationship with our brand.

2. Improved Conversion Rates: Elevating the shopping experience leads to higher conversion rates, resulting in increased sales and revenue generation.

3. Reduced Cart Abandonment: Identifying and resolving factors contributing to cart abandonment will reduce bounce rates and enhance overall conversion rates.

4. Enhanced Brand Reputation: Delivering positive customer experiences stimulates word-of-mouth marketing, bolstering our brand reputation and attracting new customers.

5. Broaden choices of products and services: With more choices of products and services, different types of customers can choose and increase customer transaction elasticity.

Data Available:

To achieve these objectives, we have access to extensive data from our e-commerce platform, encompassing:

- Customer demographics: Age, gender, location, and purchase history.

- Website interactions: Clickstream data, session duration, and product views.

- Purchase behavior: Cart abandonment, order history, and customer feedback.

- Customer support interactions: Queries, response times, and issue resolution.

- Different products for sale: Credit Card, particular Account, loans and deposits.

Approach:

1. Data Exploration: Conduct a thorough exploration of the available data to discern customer behavior, identify pain points, and uncover potential areas for improvement.

2. Sentiment Analysis: Perform sentiment analysis on customer feedback and support interactions to gauge satisfaction levels and pinpoint areas for enhancement.

3. Product Recommendation Analysis: Analyze product recommendation algorithms to ensure alignment with customer preferences and elevate personalized shopping experiences.

4. Select recommendations and solutions: Choose the appropriate model and make final recommendations and solutions for cross-selling.

Deliverables:

The deliverables of this project will comprise a comprehensive report and presentation to XYZ Retail's management team. The report will encompass insights into customer behavior, pain points, and actionable recommendations for optimizing the user experience, refining product recommendations, and effectively addressing customer concerns.

Project lifecycle along with the deadline

July 19th: Preliminary analysis of assumption formulation and framework

July 26th: Preliminary Data Processing and Discussion

Aug 2nd: The process of cleaning, integrating, and transforming data

Aug 9th: EDA performed on the data and recommendation

Aug 16th: EDA presentation for business users + technical users

Aug 23th: Select and explore different models + dashboard

Aug 30th: Final solution and recommendation + PowerPoint

Data Intake Report
Name: Cross Selling Recommendation
Report Date: July 19th,2023
Internship Batch: LISUM22
Version:1.0
Data taken by: Data Glacier
Data storage location: https://drive.google.com/file/d/16-nzZR91-ijrfjUcI2PniTpOgrvFAykA/view

Tabular Data Details: Train

Total number of objectives	1048576
Total number of files	1
Total number of features	48
Base format of the file	.csv
Size of the data	2.3GB

Tabular Data Details: Test

Total number of objectives	929616
Total number of files	1
Total number of features	24
Base format of the file	.csv

| Size of the data | 110.3MB |