Data Glacier

Week 11: Deliverable

Data Analyst: Cross Selling Recommendation Project

Team Member Details

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Problem Description

XYZ Credit Union in Latin America excels in selling individual banking products (e.g., credit cards, deposit accounts, retirement accounts). However, their customers rarely purchase multiple products, indicating low cross-selling performance. This project aims to analyze customer data and recommend actionable strategies to improve cross-selling for their products.

EDA Report

Overview

Understand customer behavior through segmentation, age, and income distribution.

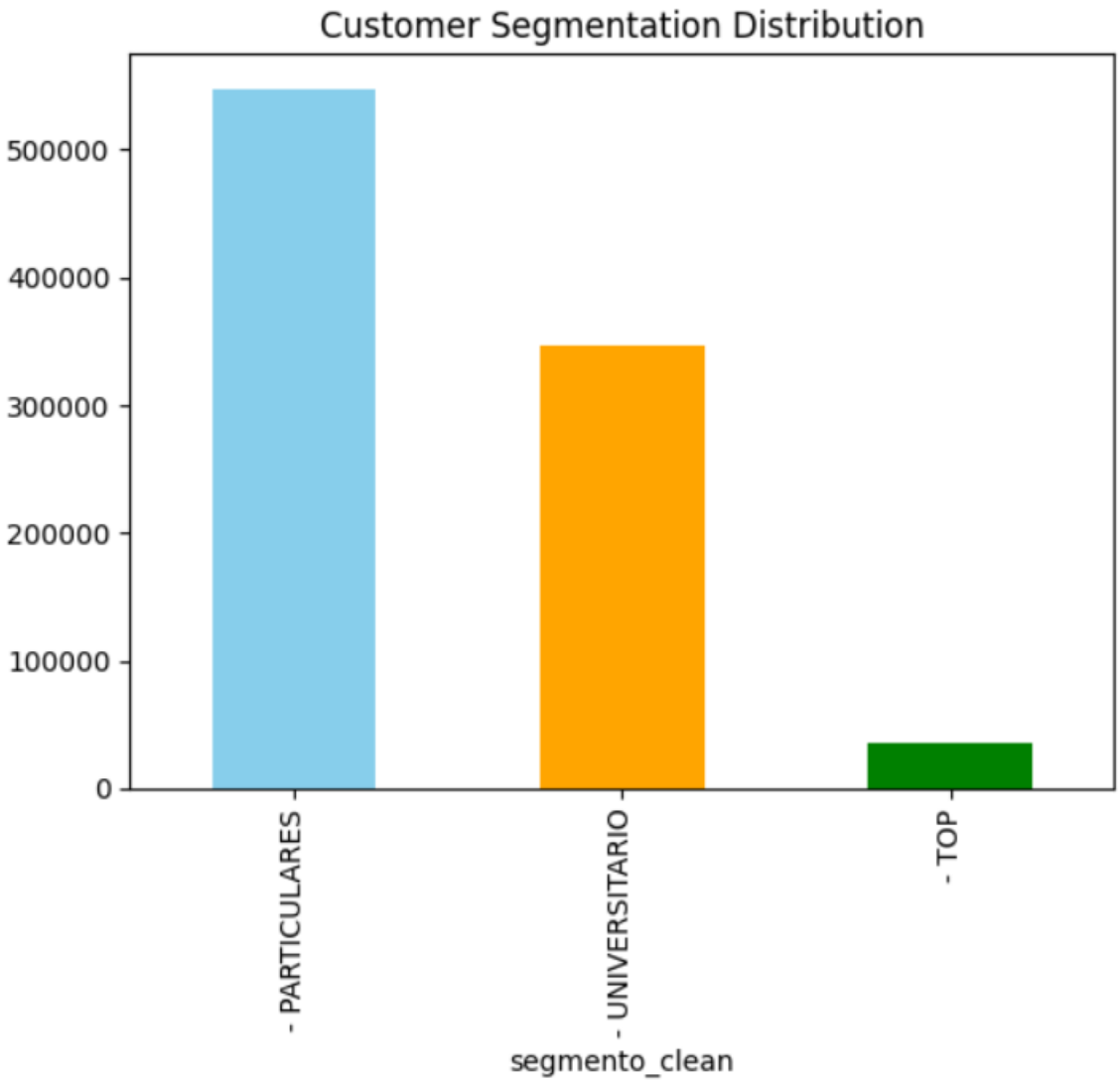
Process:

- Data Cleaning and Preprocessing
- Visualization of Key Features
- Outlier Detection
- Correlation Analysis
- Business and Technical Recommendations

Customer Segmentation Distribution

Insights:

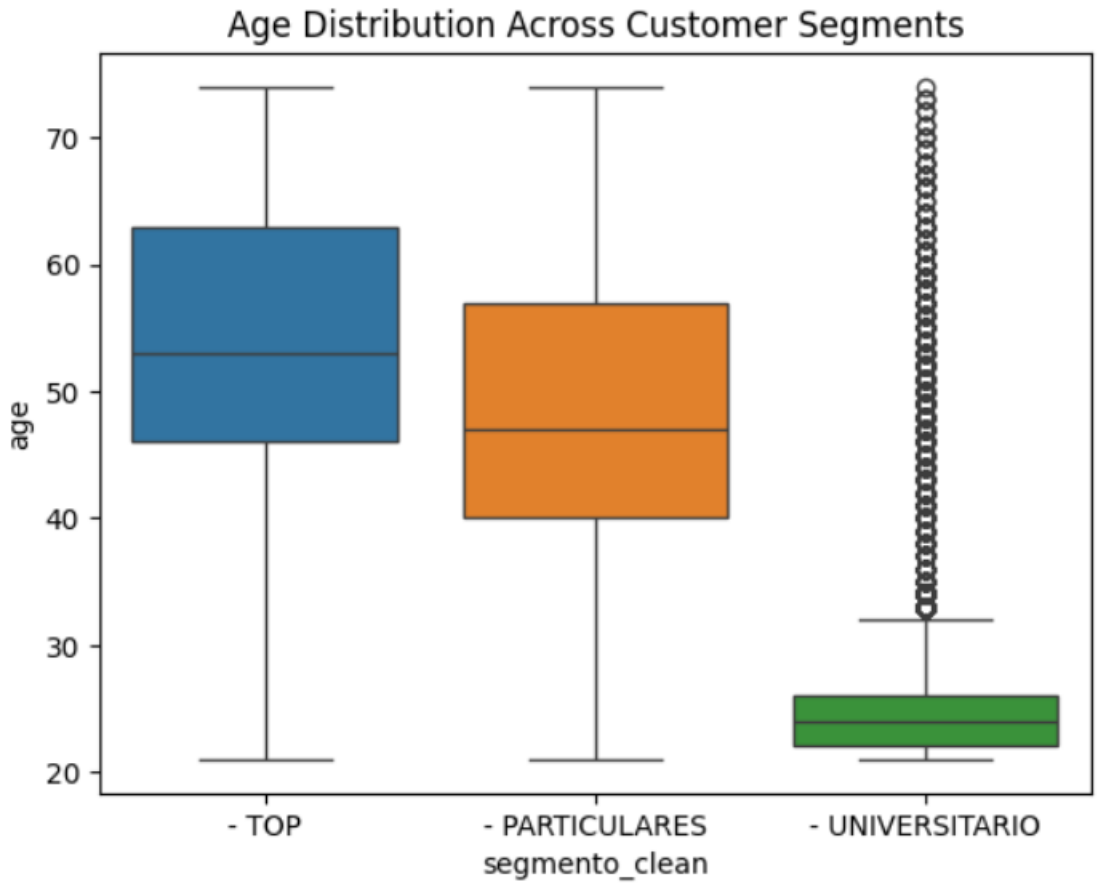
- PARTICULARES: Largest segment.
- UNIVERSITARIO: Middle segment.
- TOP: Smallest but potentially high-value customers.



Age Distribution Across Segments

Insights:

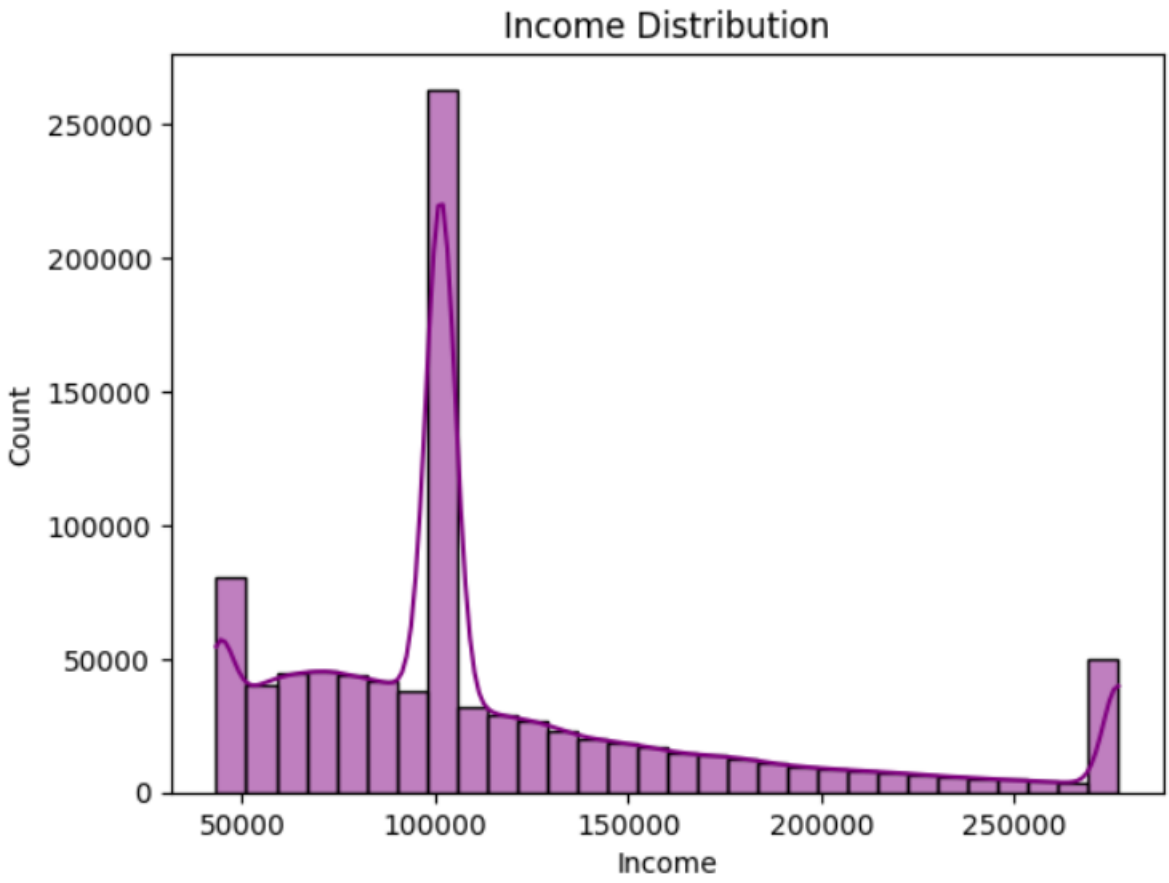
- TOP: Predominantly ages 45-65.
- PARTICULARES: Ages 40-55.
- UNIVERSITARIO: Ages 20-25, indicating a younger demographic.



Income Distribution

Insights:

- Most incomes are below 50,000.
- A significant peak at 100,000.
- Some customers with income up to 250,000.



Business Recommendations

- Focus on **PARTICULARES** for volume-based campaigns.
- Create **age-based targeting strategies**:
    - Young adults (UNIVERSITARIO): Promotions on education-related services.
    - Middle-aged (PARTICULARES): Household-focused services.
    - Older adults (TOP): Premium offerings.
- Use income data to identify **high-value customers**.

Technical Recommendations

- **Recommended Models**:
    - **Clustering**: Use K-Means to segment customers by income and age.
    - **Regression**: Predict income using demographic features.
    - **Classification**: Determine likelihood of high-value customer behavior.