

EDA Presentation

<https://github.com/Amaank233/Week11>

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Problem

- Problem: Cross selling recommendation - Group Project - How to increase cross selling of Banking Product
- Problem Description: The problem here is that they need to increase credit union's cross selling. The bank wants to sell their customers more than one product.

Data Understanding

- The data contains different types information:
 - + Customer Demographics
 - + Bank Products
 - + Customer Economic information
 - + Customer's relationship with the bank
 - + Residence information of the customer

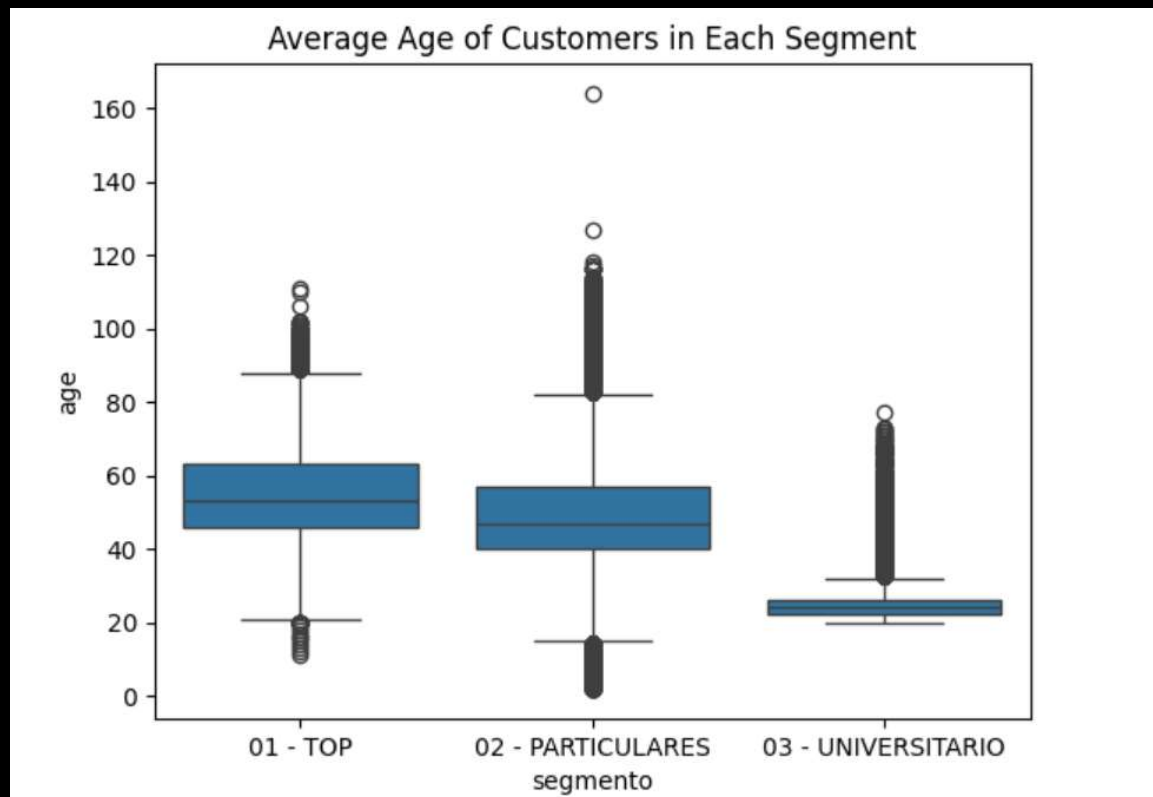
Data Cleaning and Transformation

- Handle missing values
- Feature scaling
- Data type conversion
- Encoding categorical variables
- Outlier treatment and detection

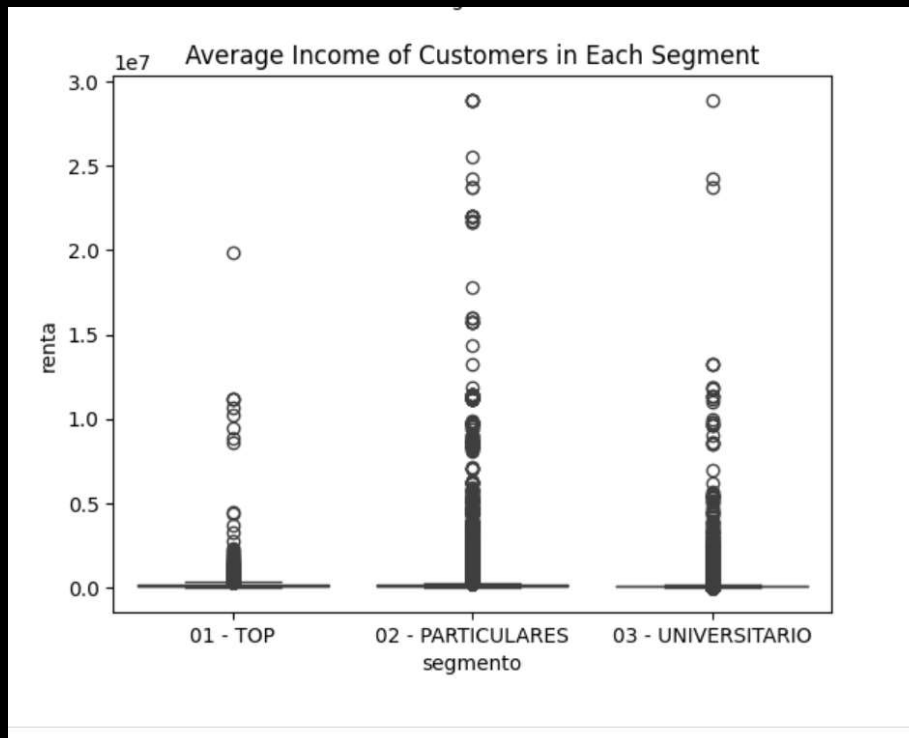
Customer Segmentation

- The largest number of customers belong to the 'Particulares' segment, making up approximately 59.15% of the total customer base.
- The 'Universitario' segment is the second biggest one, with around 36.67% of the customers.
- The 'Top' segment is the least amount, with only about 4.18% of the customers.

Customer Age



Income

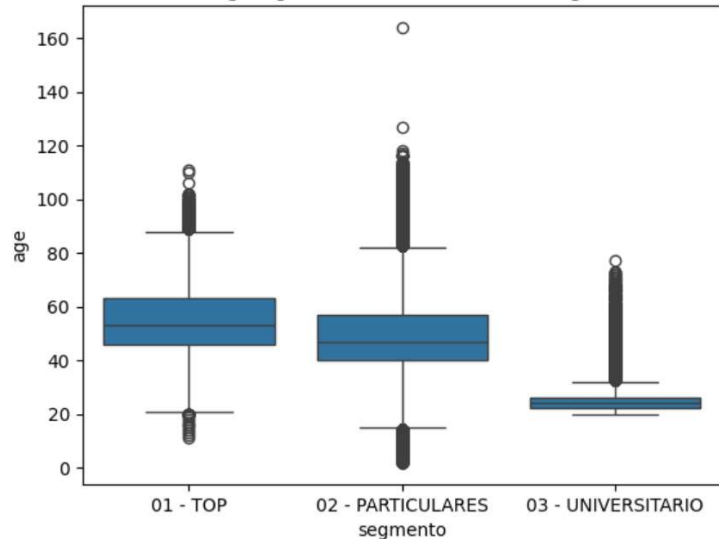


Cross Selling Opportunities

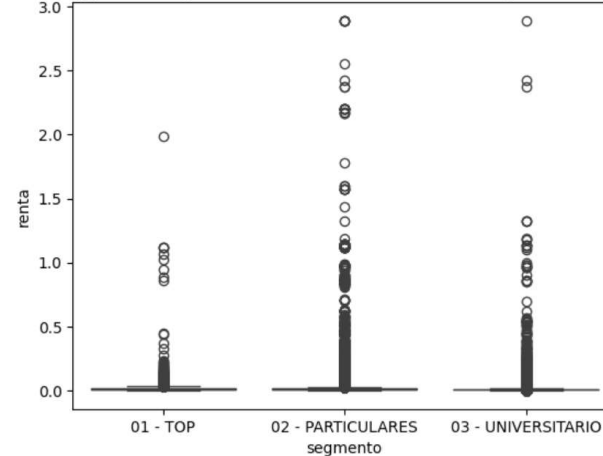
- The bank should try to target higher paid customers some high value banking products or investment opportunities
- The bank should offer different age groups different things. For example, seniors could be offered retirement products or accounts.
- Bank should also offer products to young adults and students, like student accounts or tuition loans.

Dashboard

Average Age of Customers in Each Segment



Average Income of Customers in Each Segment



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KPIs:

- Cross Sell Ratio, Product Penetration Rate, Revenue from Cross Selling, Customer Retention Rate

Model Recommendations

- Decision Trees
- Random Forest
- Gradient Boosting
- Support Vector Machines
- Logistic Regression