Dashboard Design

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Credit Card Attrition Case Study

Dashboard Design and Implementation

Dataset overview:

- Database of records of bank customers, both attrited customers and existing customers, with features like gender, age, salary, marital status, credit card limit, credit card category, inactive months, etc.

  – https://www.kaggle.com/datasets/sakshigoyal7/credit-card-customers?datasetId=982921&sortBy=commentCount&page=2

  – 10,127 observations/ 23 variables

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Audience:

Managers and analysts attempt to understand the group of attrited customers who leaving their credit card services, and to identify potential customers who are going to get churned so they can proactively go to these customers to provide them better services and turn customers' decisions in the opposite direction.

Overall Report Goal:

This is primarily a "research and analysis" dashboard, thus we will attempt to provide maximum flexibility to analysts in their exploration of the data.

Dashboard Design

- Main Page Layout
  - Choose Customer Range (Total Customer/ Attrited Customer/ Existing Customer)
  - Show the Navigation to Comparative Analysis and Attrition Analysis
  - Display the Features of Customers
    - By Age/ Education Level/ Number of Dependents/ Gender/ Marital Status/ Income Category/ Type of Card/ Number of Products Held by Customer
- Comparative Analysis Page
- Attrition Analysis - Customer Financial Information Page
- Attrition Analysis - Customer Basic Information Page
- Attrition Analysis - Customer Behavior Information Page

Main Page Layout
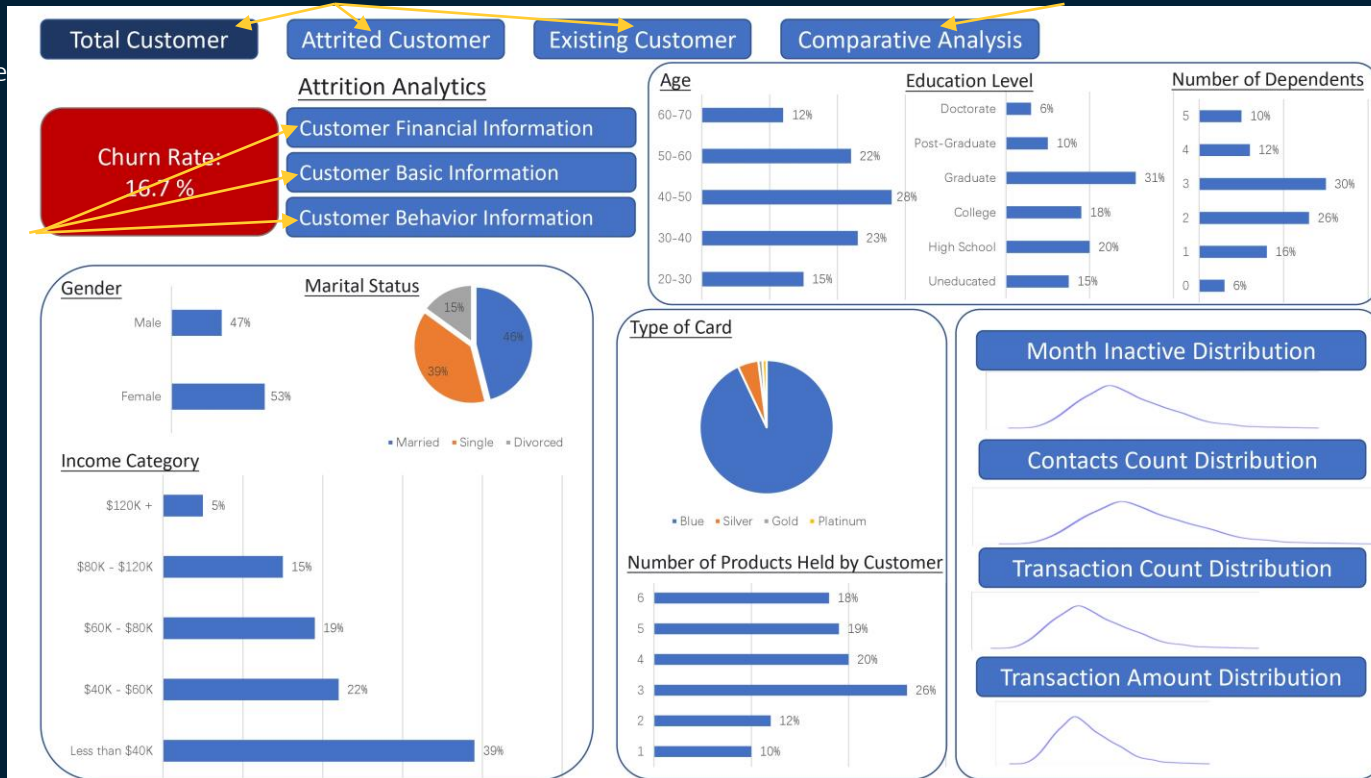
Comparative Analysis Page

On-Page Filtering:
- Select anyone from the top 3 blue buttons (Total Customer/ Attrited Customer/ Existing Customer) and filter the other graphics.

Navigation:
- Select the 'Compare' blue button to go the Compare Analysis page, a comparative analysis for Attrited Customers and Existing Customers.

On-Page Filtering:
- Select any category or combinations of categories in the Bar Charts or/and Pie Charts bar from graphics (Gender/ Marital Status/ Age/ Education Level/ Income Category/ Type of Card/ Number of Products Held by Customer) and filter the other graphics.

Attrition Analysis - Customer Financial Information Page

On-Page Filtering:
- Select anyone from the below 6 white buttons (Gender/ Customer Age/ Marital Status/ Card Type/ Education Level/ Number of Dependents) and filter the other graphics.

On-Page Filtering:
- Select anyone from the below 6 white buttons (Less than $40k/ $40k - $60k/ $60k - $80k/ $80k - $120k/ $120k+/ Unknown) and filter the left graphics.

On-Page Filtering:
- Select any segment in the Heatmap, which is a combination of 3 categories, (e.g. Attrited Customer, Income Category is Less than $40k and Education Level is High School) and filter the right graphics
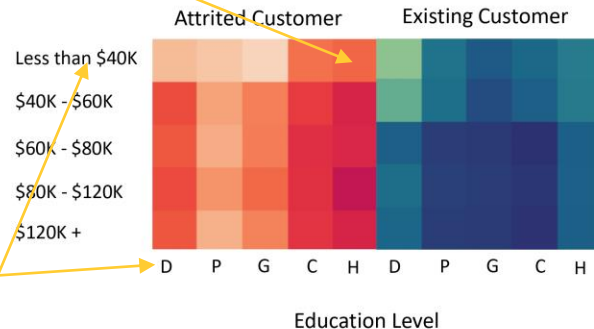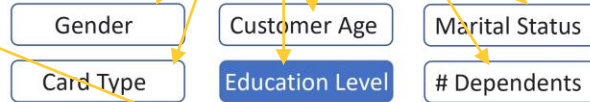
On-Page Filtering:
- Select any category in Income Category or Education Level and filter the right graphics
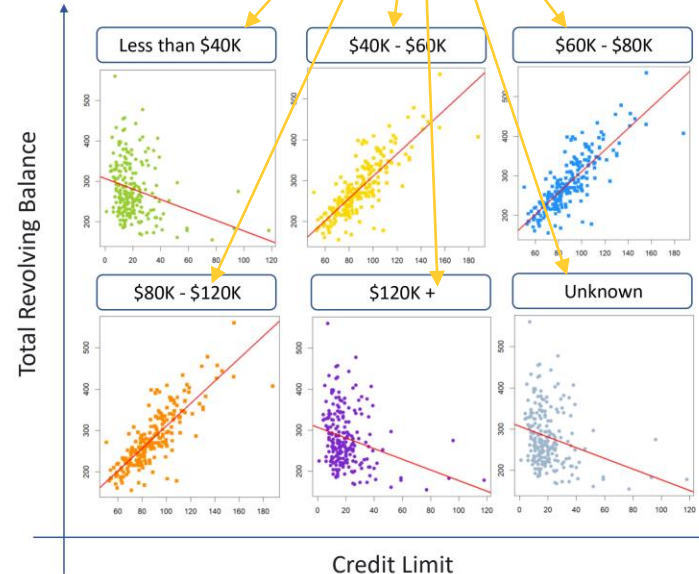
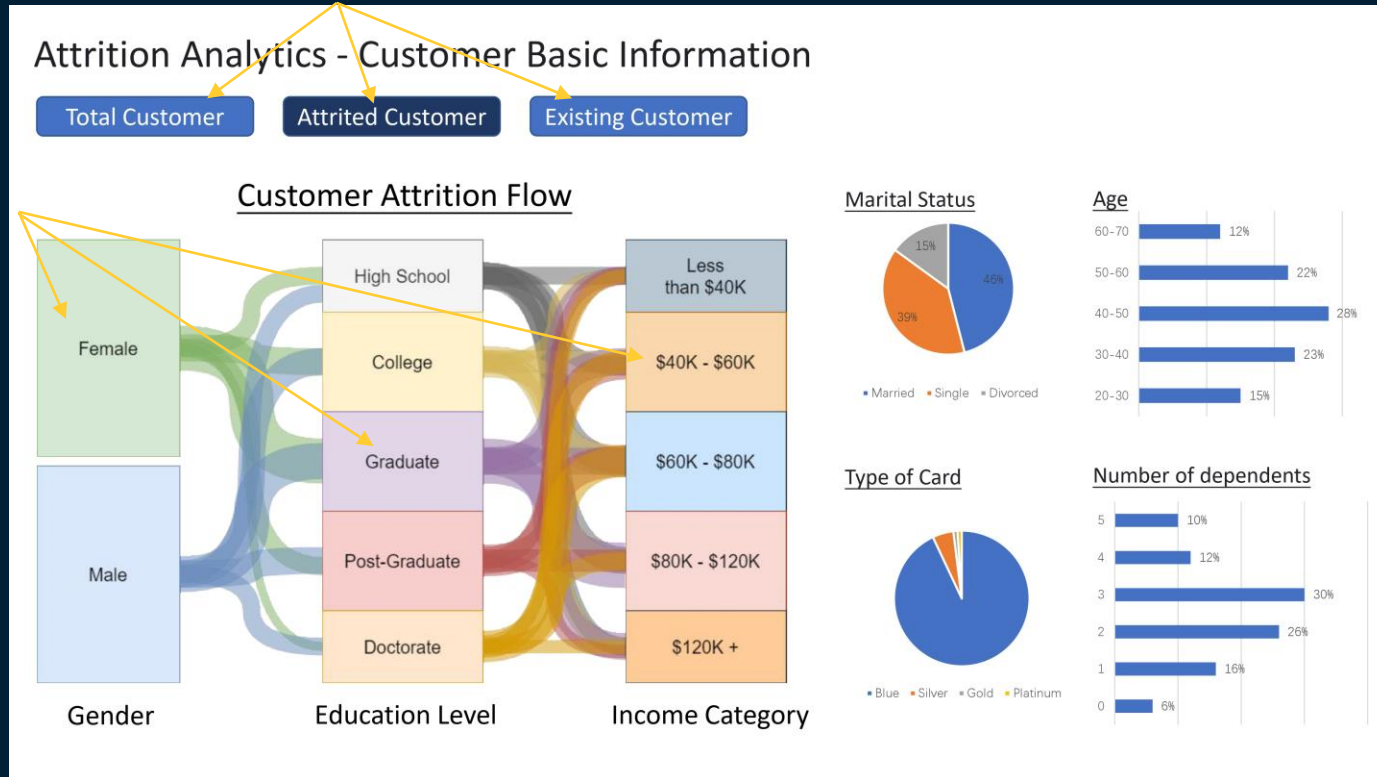# Attrition Analysis - Customer Basic Information Page

On-Page Filtering:
- Select anyone from top 3 blue buttons (Total Customer/ Attrited Customer/ Existing Customer) and filter the other graphics.

On-Page Filtering:
- Select any category from the below 4 graphics(Marital Status/ Age/ Type of Card/ Number of Dependents) or select the combination of categories, and filter the other graphics.

On-Page Filtering:
- Select any category in Gender, Education Level or Income Category or select the combination of categories, filter the other graphics

Attrition Analytics - Customer Basic Information

Total Customer   Attrited Customer   Existing Customer

Customer Attrition Flow

Gender: Female, Male
Education Level: High School, College, Graduate, Post-Graduate, Doctorate
Income Category: Less than $40K, $40K - $60K, $60K - $80K, $80K - $120K, $120K +

Marital Status
- Married 46%
- Single 39%
- Divorced 15%

Age
- 60-70: 12%
- 50-60: 22%
- 40-50: 28%
- 30-40: 23%
- 20-30: 15%

Type of Card
- Blue, Silver, Gold, Platinum

Number of dependents
- 5: 10%
- 4: 12%
- 3: 30%
- 2: 26%
- 1: 16%
- 0: 6%

Attrition Analysis - Customer Behavior Information Page

On-Page Filtering:
- Select any category from the Card Type (Bule/ Silver/ Gold/ Platinum) and filter the other graphics.

On-Page Filtering:
- Select any category in Income Category or select the combination of categories(e.g. Attrited Customer and Incomer $120k), filter the other graphics

On-Page Filtering:
- Select any category in Income Category or select the combination of categories(e.g. Attrited Customer and Incomer $120k), filter the other graphics