

Customer Profiling & Behavior Analysis for Effective Marketing Strategy of a Supermarket

Capstone Project Module 2 - Osvaldo Sirait

Outline

Background Project

Summary of obtained data used for analysis. Objective and expected result from analysing this dataset

Customer Demographic

Customer demographic based on Age, Income, Education Background, Marital Status, and House

Customer Profiling

Customer Retention Analysis to determine profile based on Tenure, Customer Lifetime Value, and Churn Rate

Customer Behavior

Analyzing customer behavior based on Product Preference, Channel Preference, and Promotion Response

Conclusion

Insights and Recommendations from Data Analysis Result

Background

Data Overview



Customer Data

- Birth Year
- Education
- Marital Status
- Income
- Kid & Teen in Home
- First Transaction Date
- Recency



Product Category

- Wine
- Fruits
- Meat
- Fish
- Sweets
- Gold



Channel of Purchase

- Website
- Store
- Catalog



Campaign & Promotion

- Campaign 1 - Campaign 6
- Order with Discount

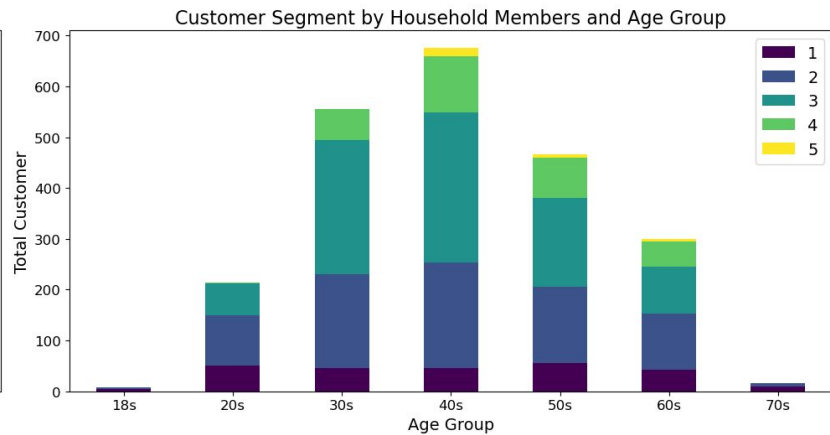
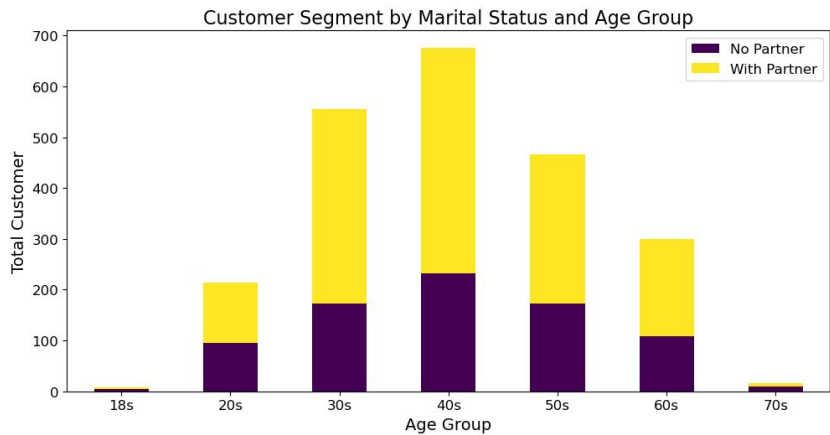
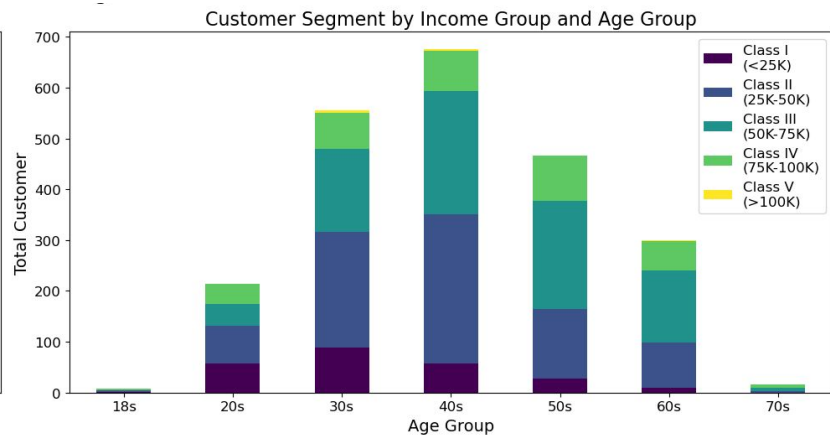
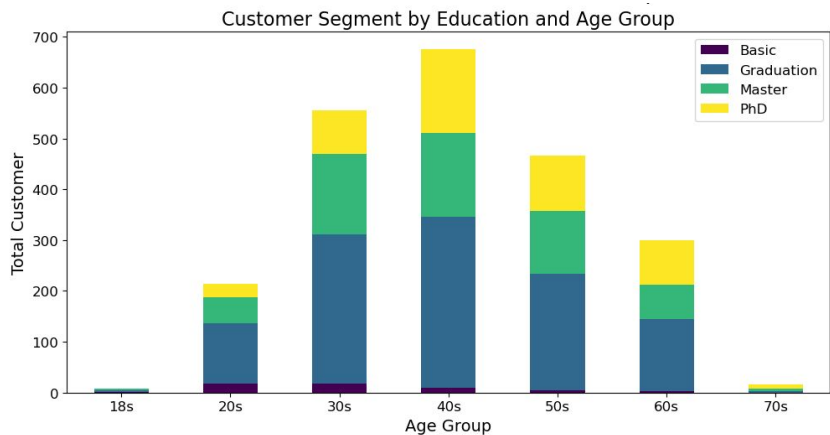
Project Goals

Menentukan **segmen konsumen** paling tepat **untuk strategi dan marketing plan** yang memiliki impact signifikan terhadap penjualan, growth, dan ROI yang baik.



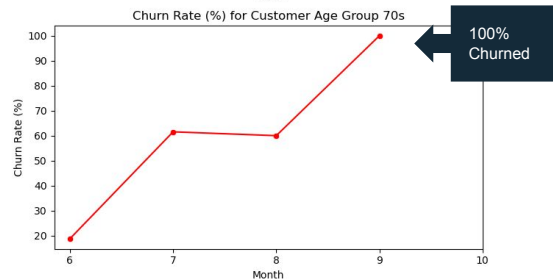
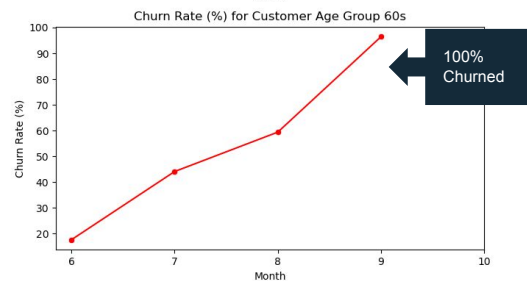
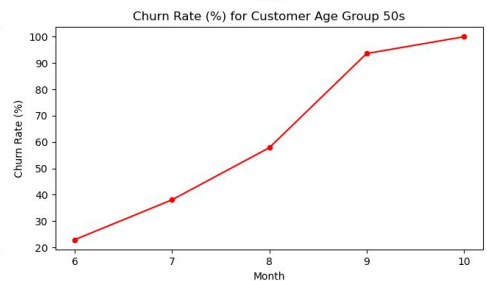
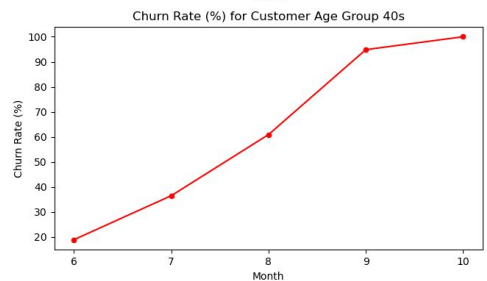
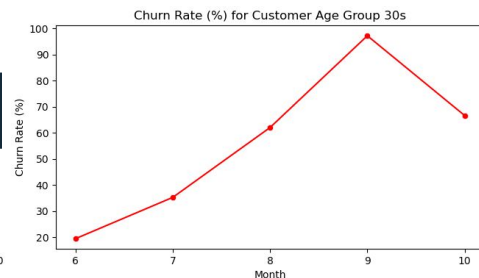
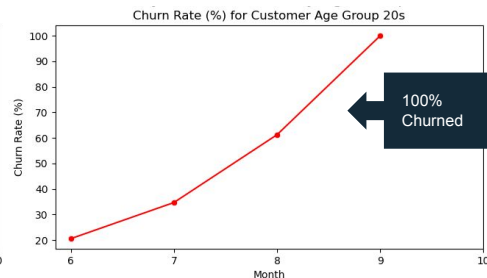
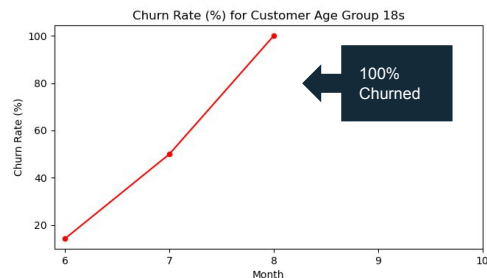
Customer Demographic

Supermarket Customer Segment

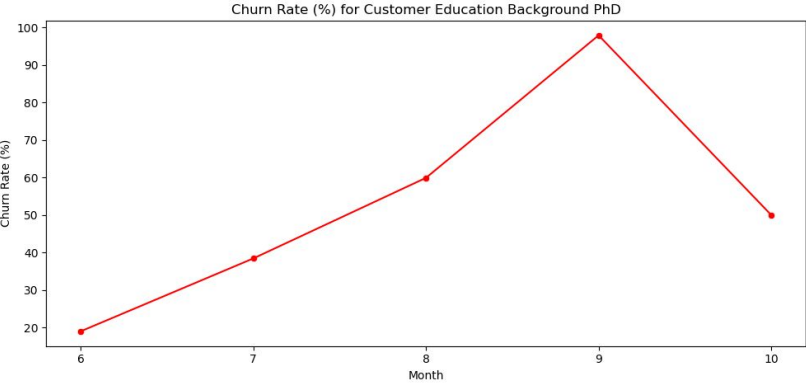
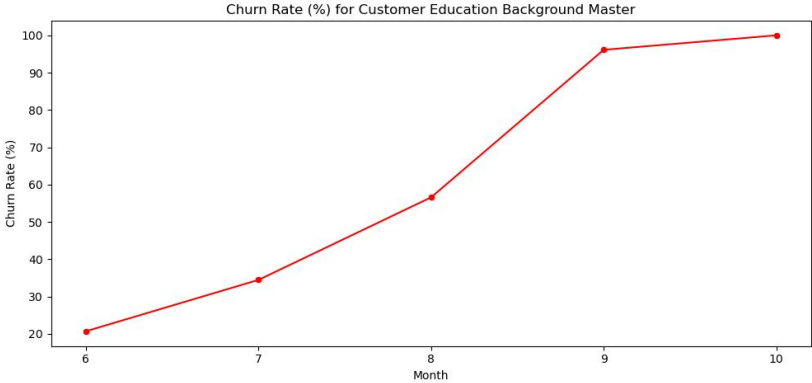
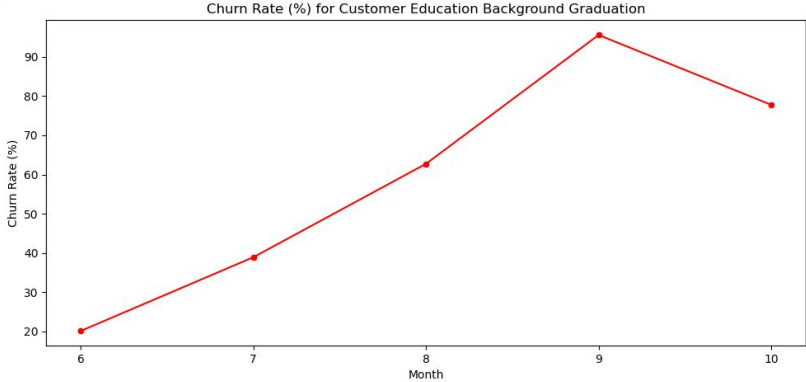
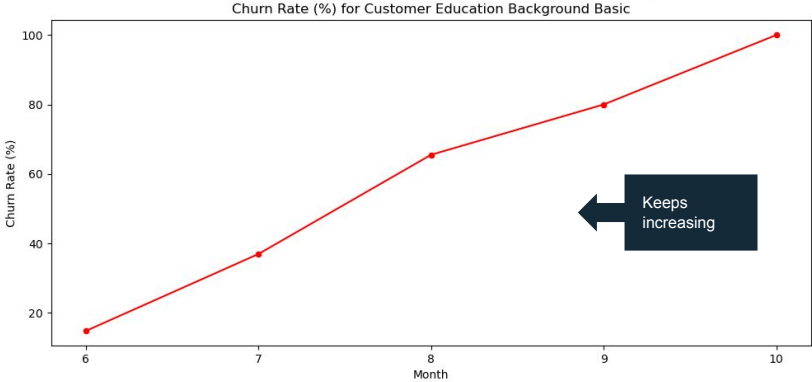


Customer Profile by Retention

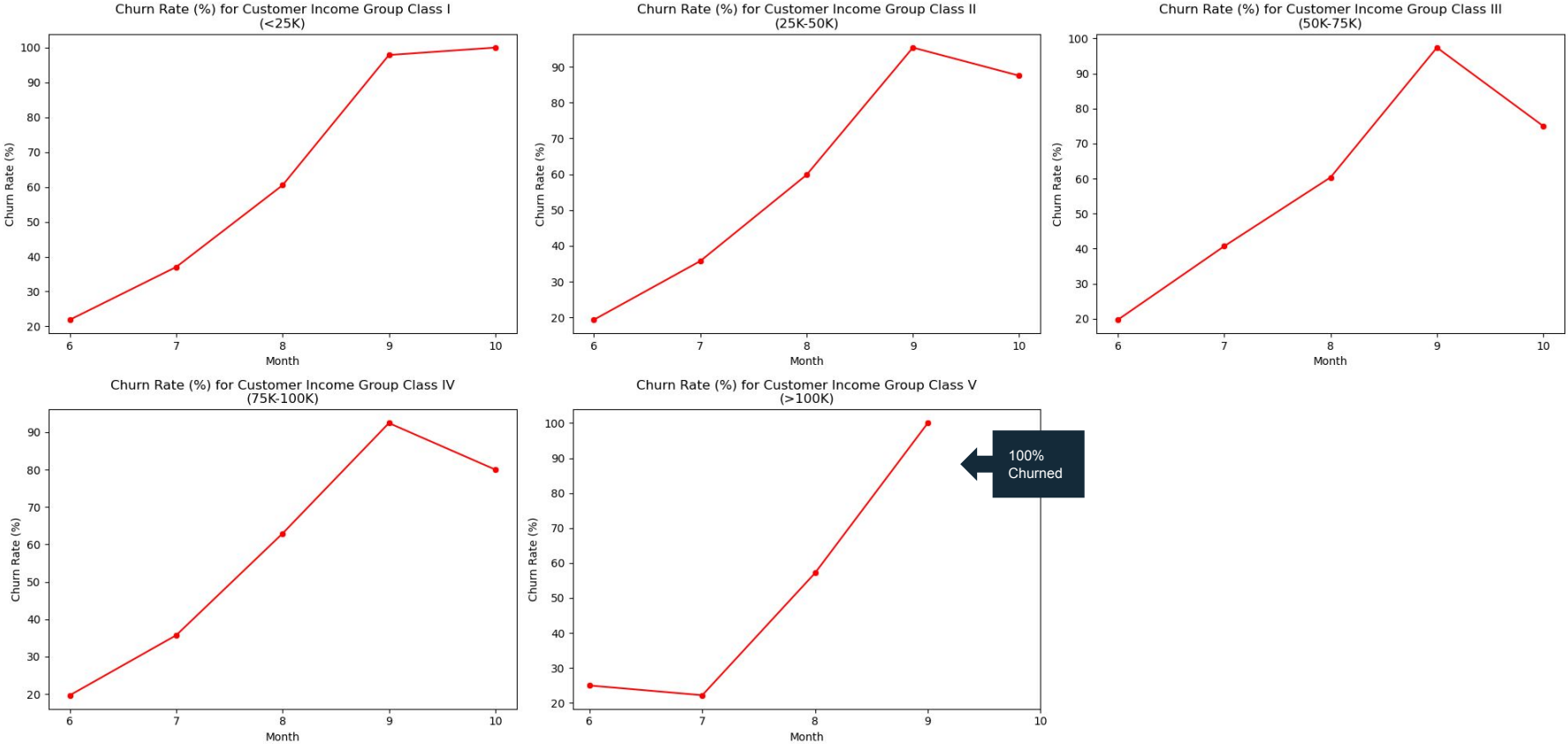
Monthly Churn Rate by Age Group



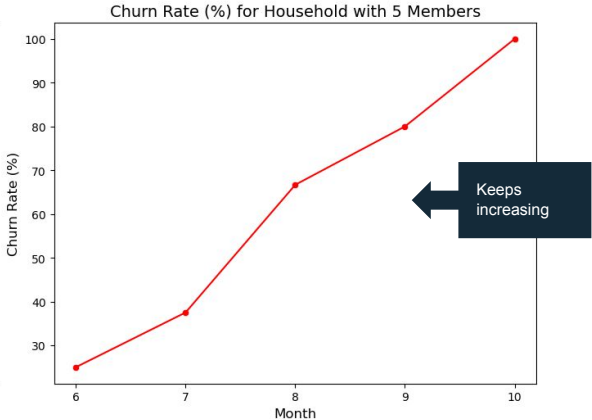
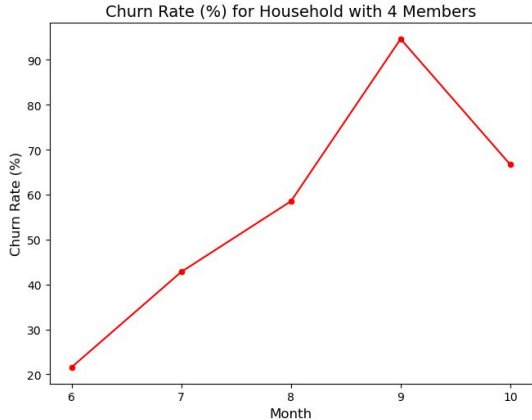
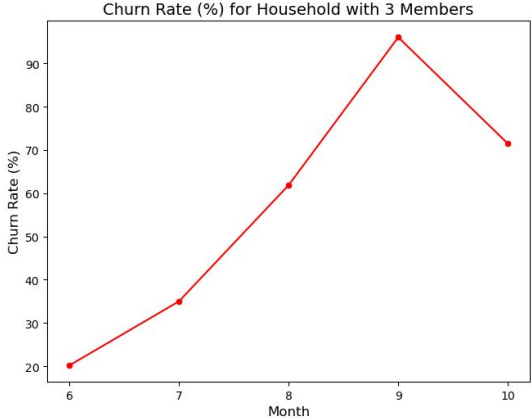
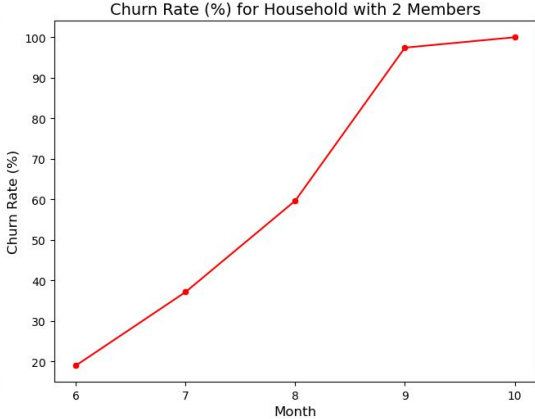
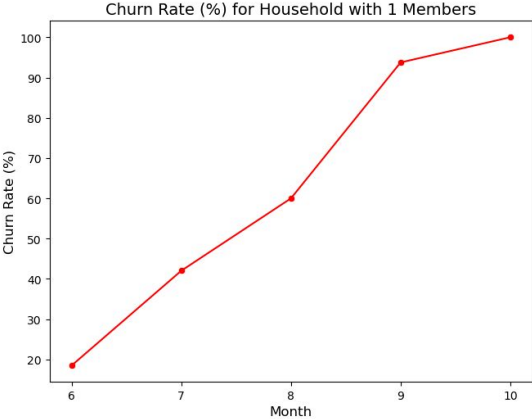
Monthly Churn Rate by Education Background



Monthly Churn Rate by Income Group

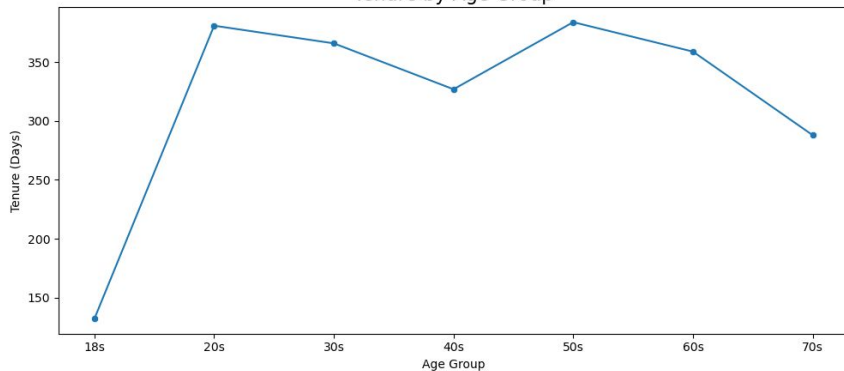


Monthly Churn Rate by Household Members

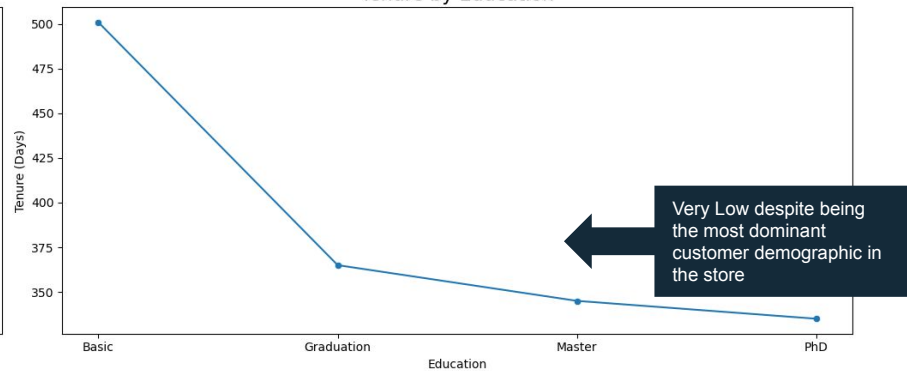


Customer Tenure

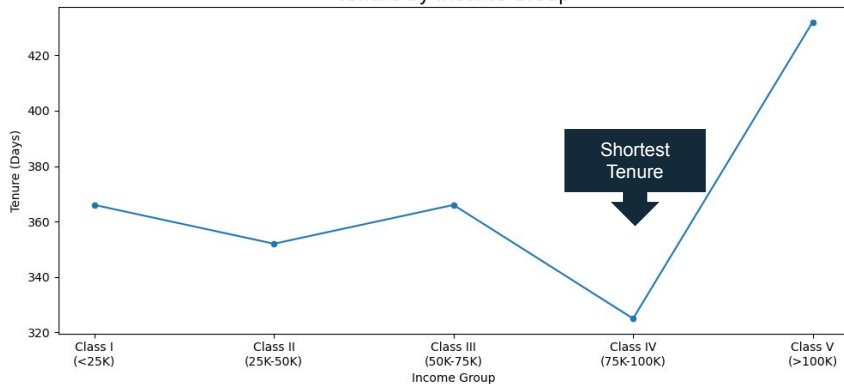
Tenure by Age Group



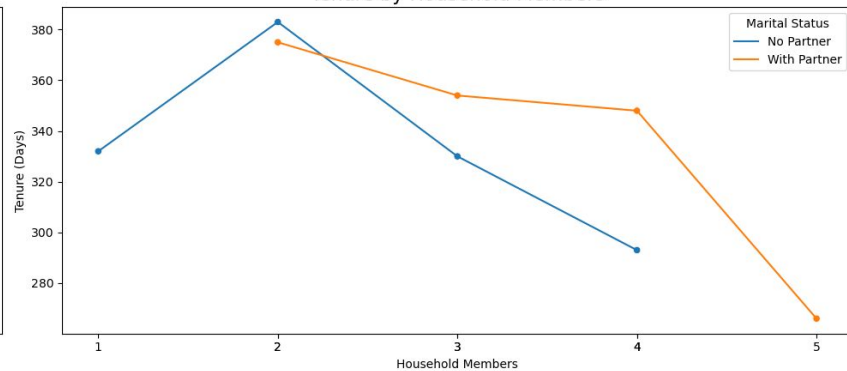
Tenure by Education



Tenure by Income Group

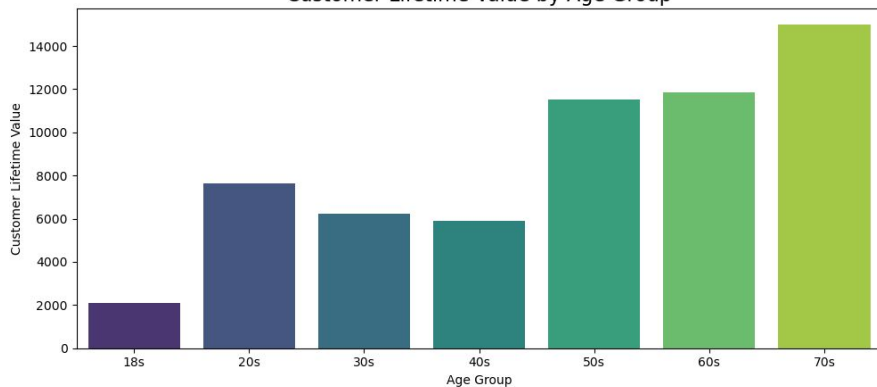


Tenure by Household Members

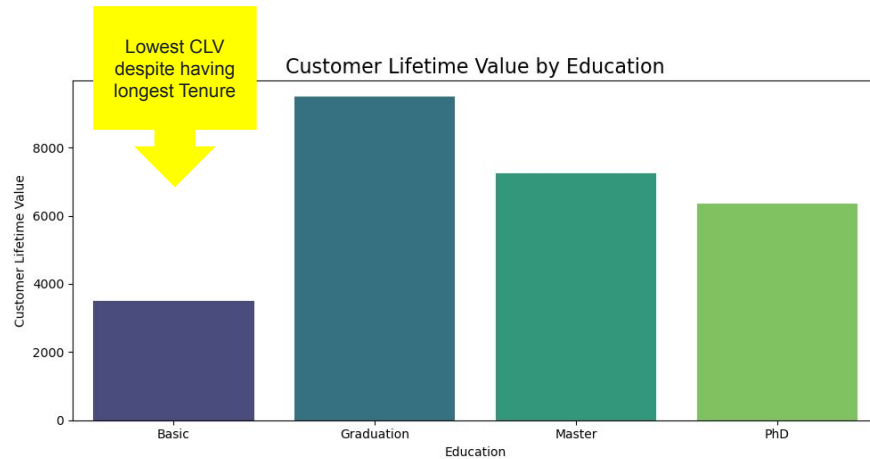


Customer Lifetime Value (CLV)

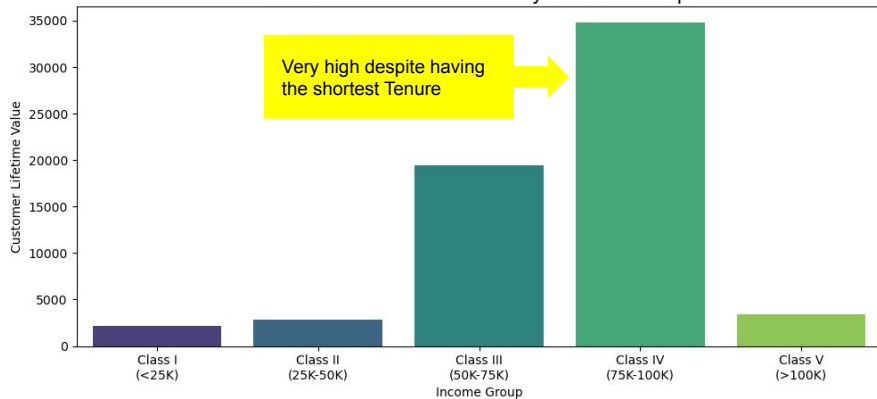
Customer Lifetime Value by Age Group



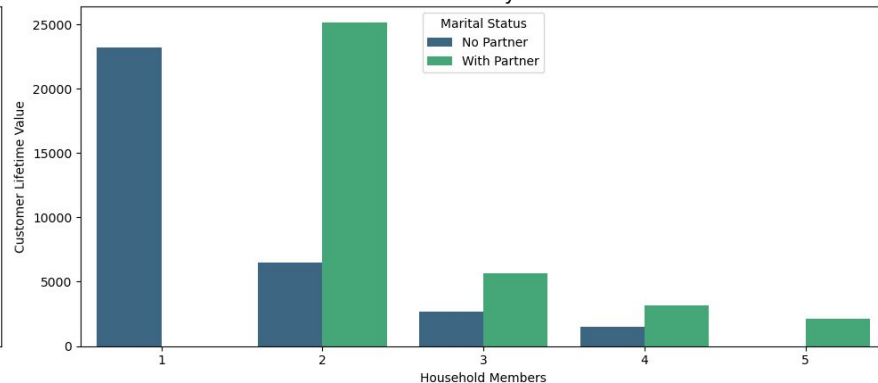
Customer Lifetime Value by Education



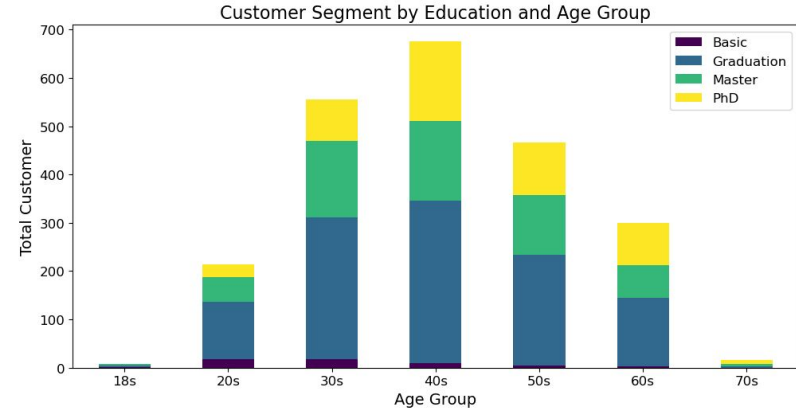
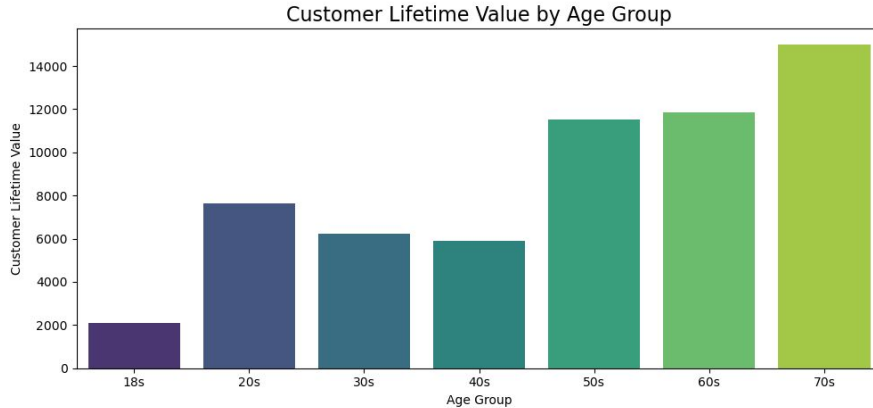
Customer Lifetime Value by Income Group



Customer Lifetime Value by Household Members



CLV Comparison based on Customer Age Group



CLV by Age Profile

Age Group 50s, 60s, 70s:
semakin tua, semakin tinggi CLV

Age Group 20s, 30s, 40s:
semakin tua semakin rendah CLV

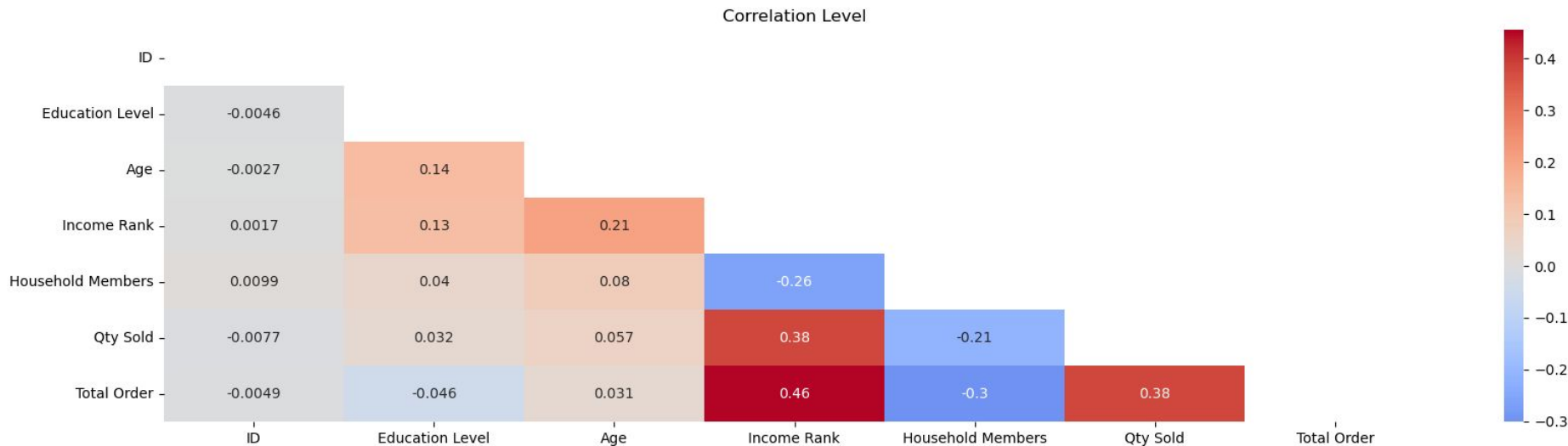
Age Profile

Age Group 50s, 60s, 70s:
semakin tua semakin sedikit jumlah customer

Age Group 20s, 30s, 40s:
semakin tua semakin banyak jumlah customer

Business and Segment Relationship

Customer Segment Correlation to Business



**Quantity
Sold**

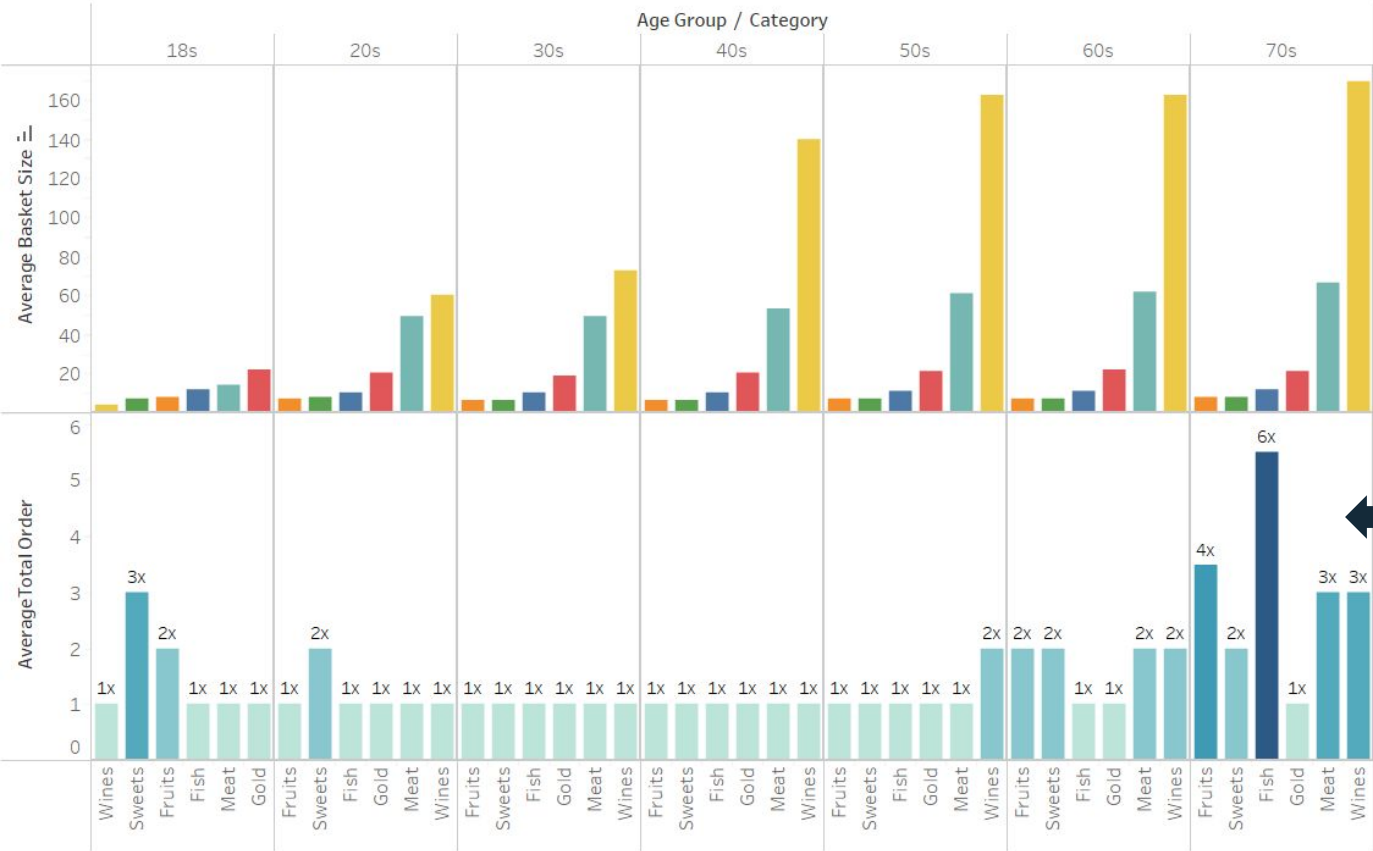


**Income Rank
Total Order**



**Household
Members**

Customer Basket Size by Age Group

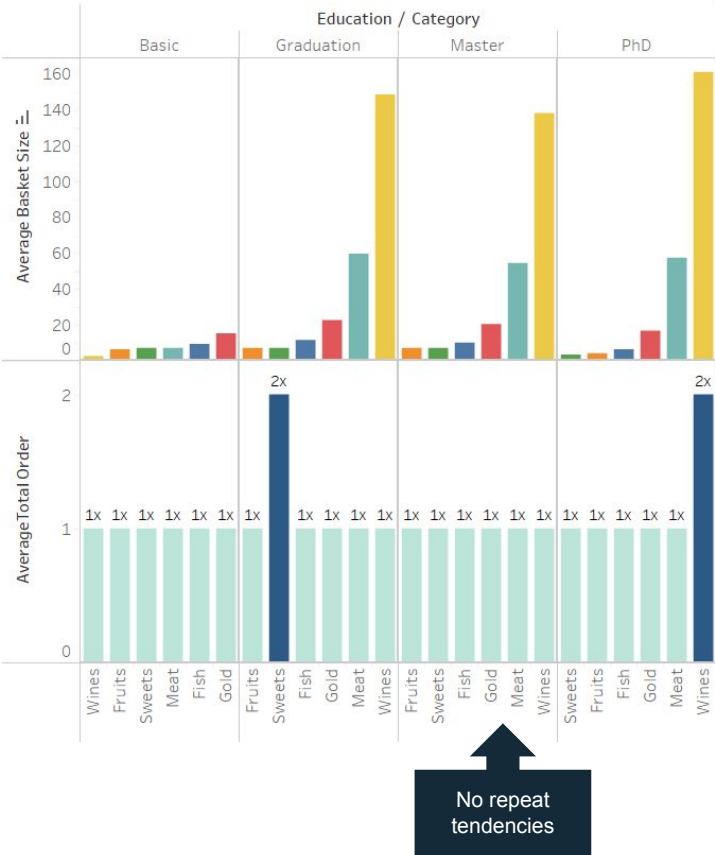
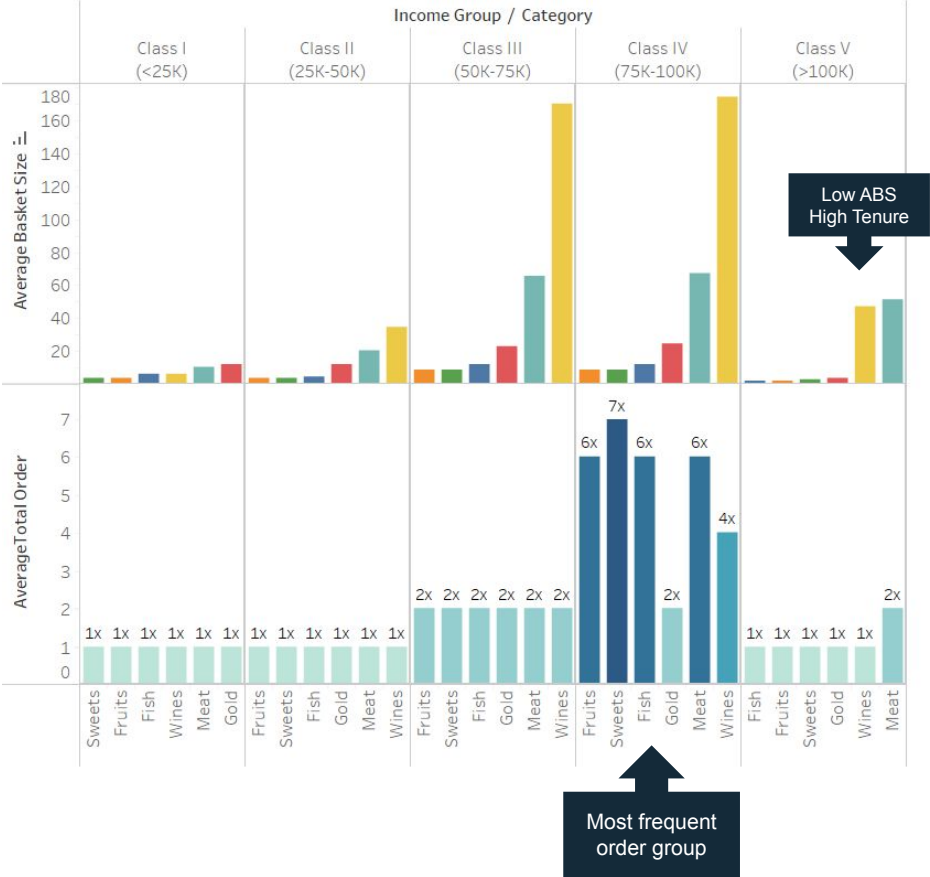


Highest ABS:

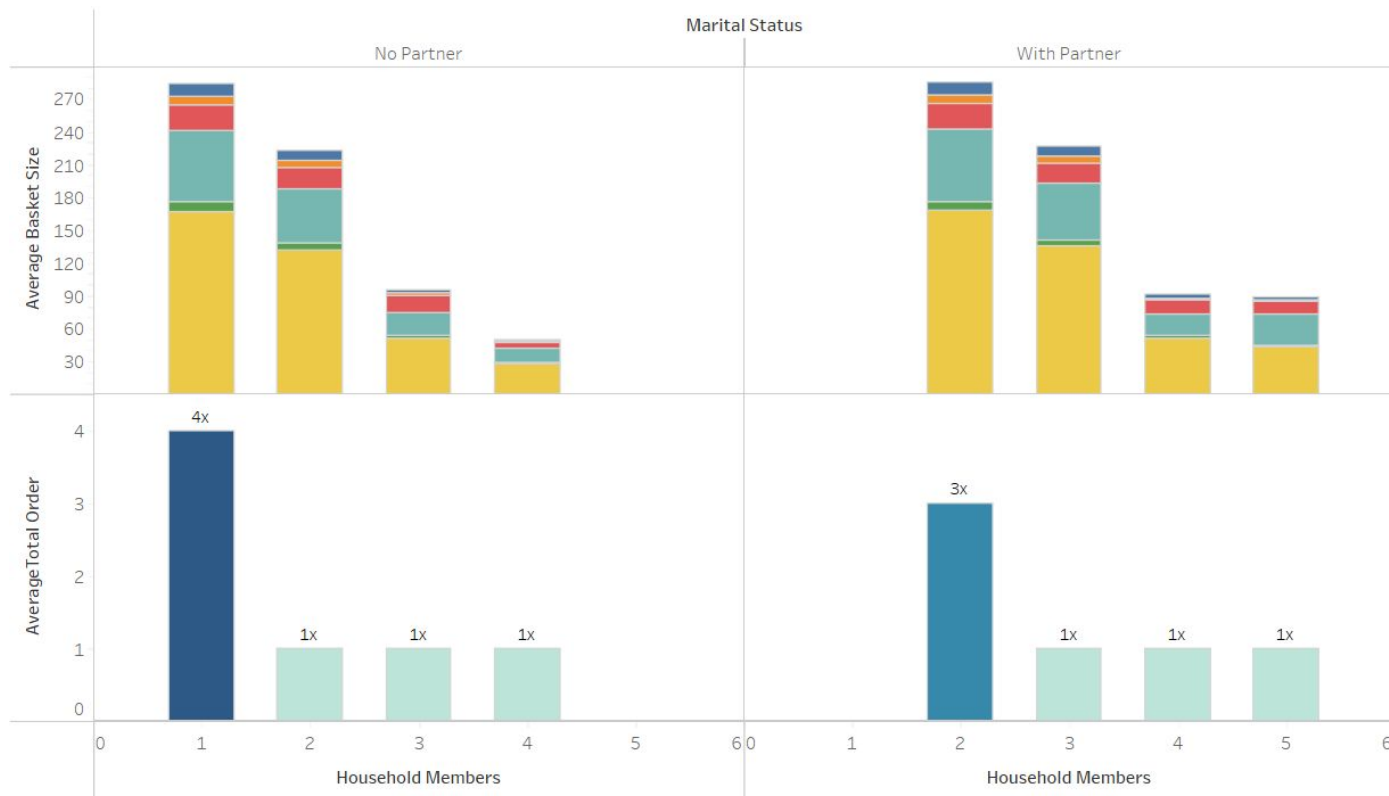
- **Umur >20 tahun:**
Wine & Meat
- **Umur <20 tahun:**
Gold & Meat

Most frequent
order group

Customer Basket Size by Income and Education Group



Customer Basket Size based on Household Members

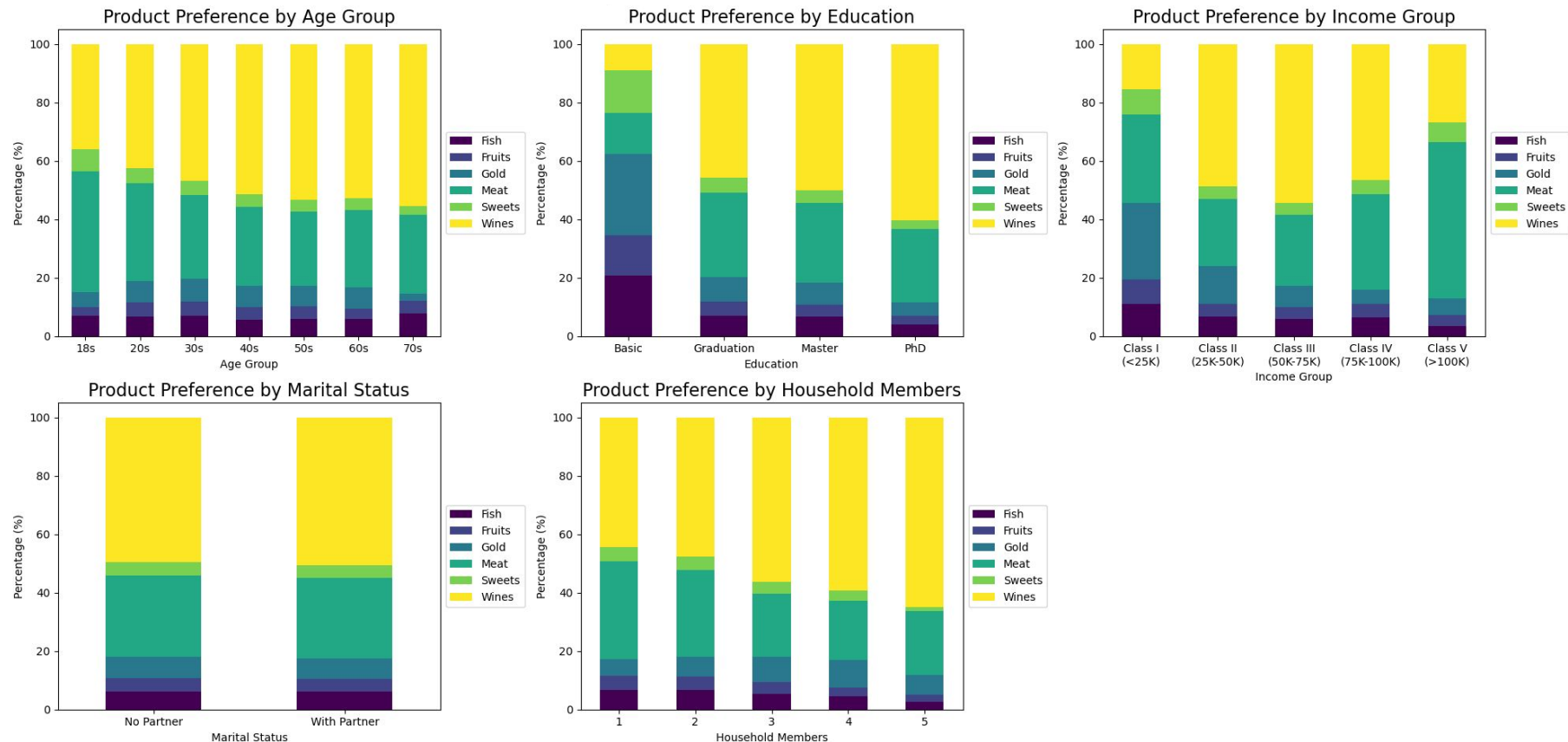


ABS Trend:

Semakin banyak anggota keluarga, semakin rendah ABS dan tendencies untuk repeat order

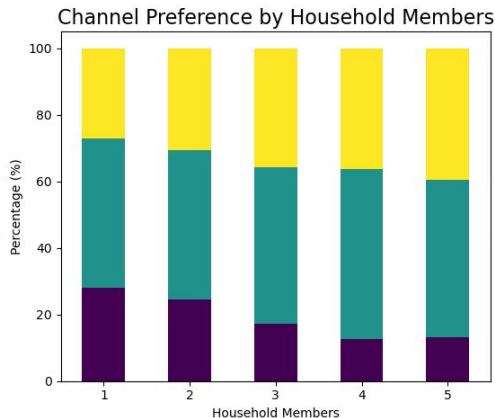
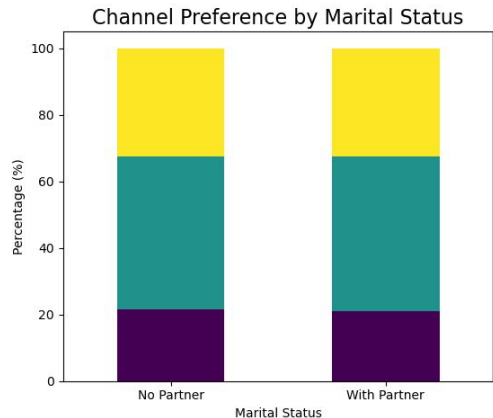
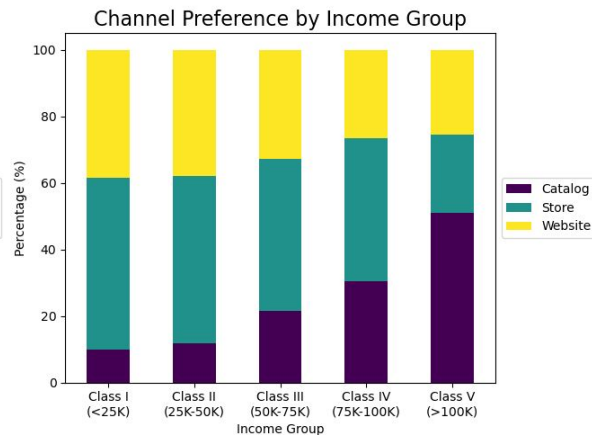
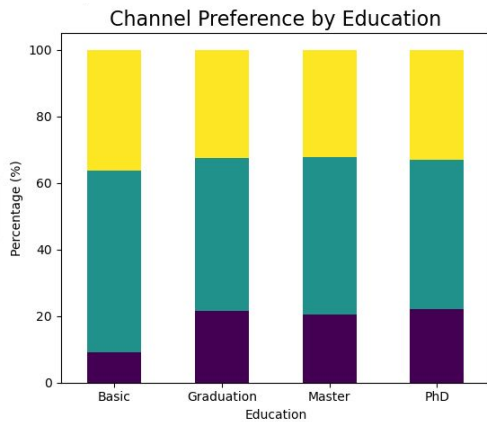
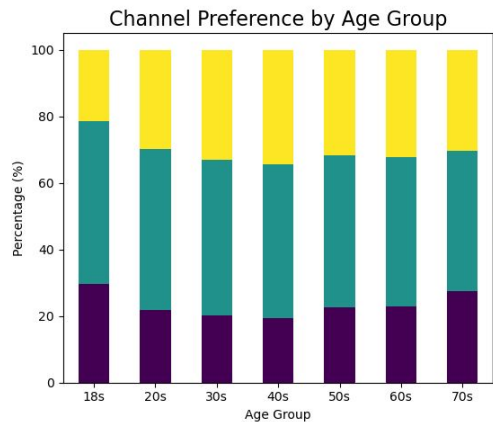
Product Preference Analysis

Supermarket Customer Product Preference



Channel Preference Analysis

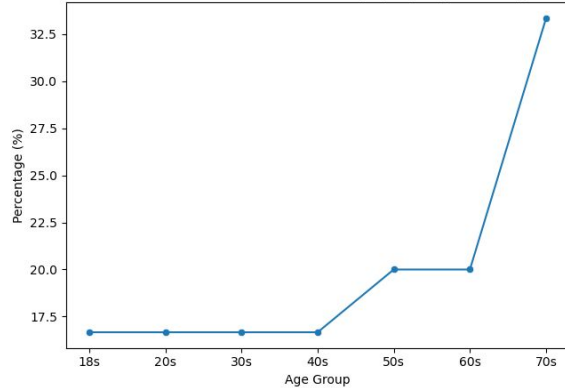
Supermarket Customer Channel Preference



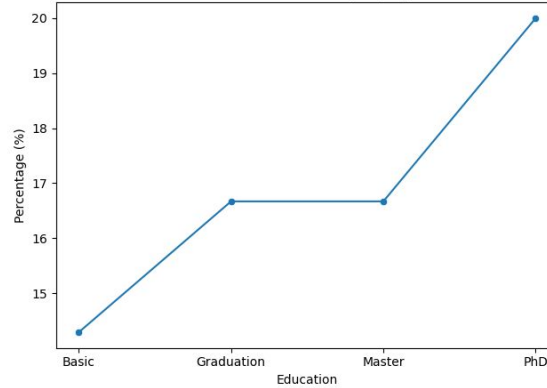
Higher Website Preference in the Group

Website Conversion Rate

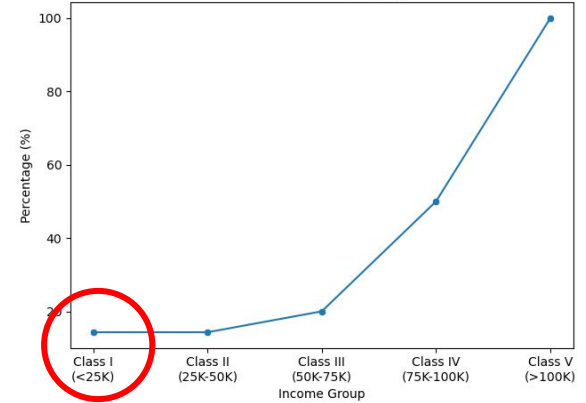
Website Conversion Rate (%) by Age Group



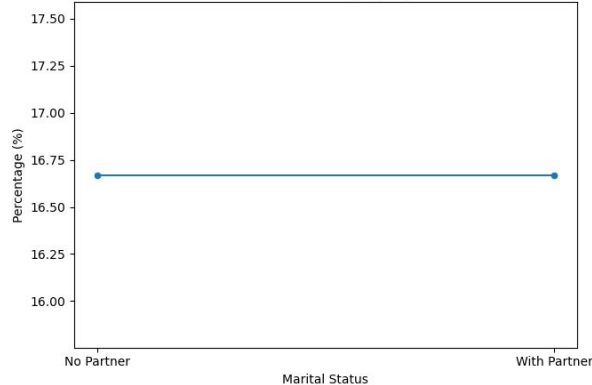
Website Conversion Rate (%) by Education



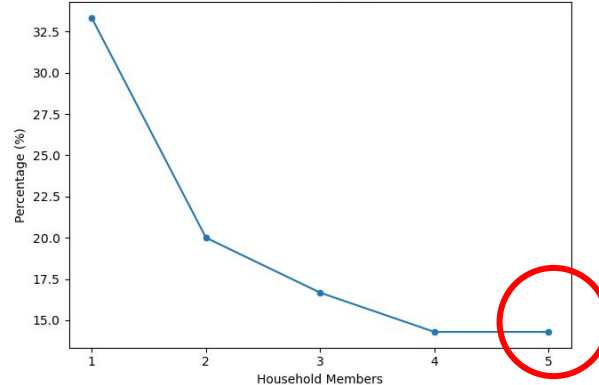
Website Conversion Rate (%) by Income Group



Website Conversion Rate (%) by Marital Status



Website Conversion Rate (%) by Household Members

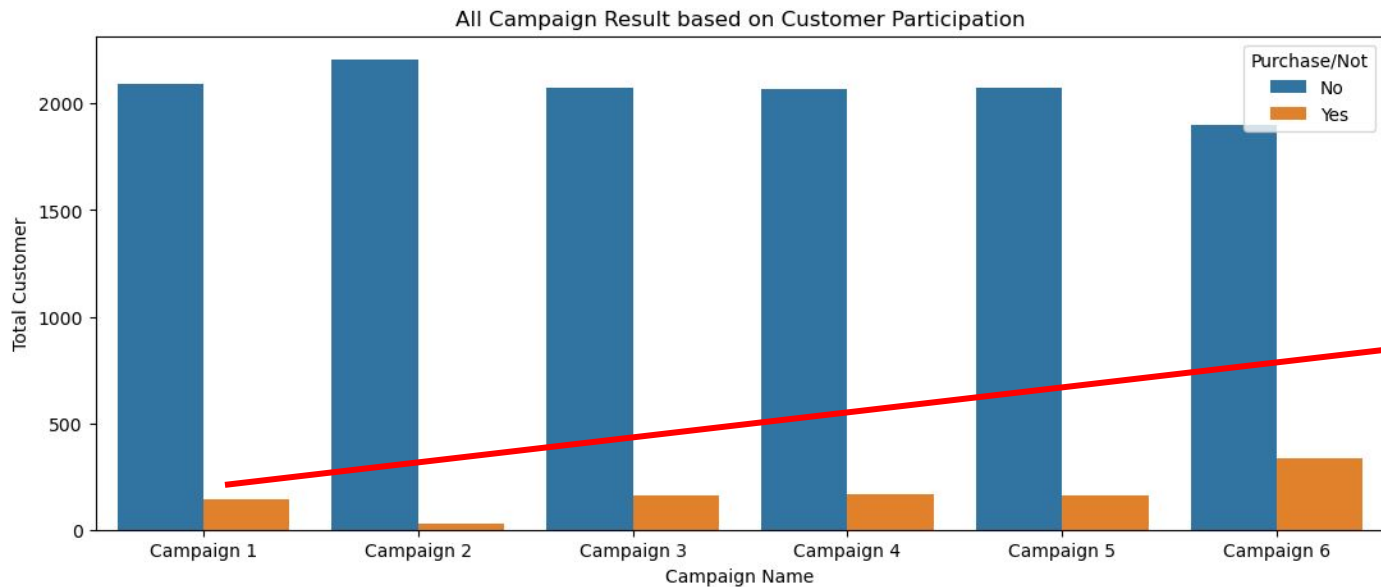


Highlights:

Meskipun preferensi tinggi, conversion rate sangat rendah. Artinya marketing activity di website belum menarik.

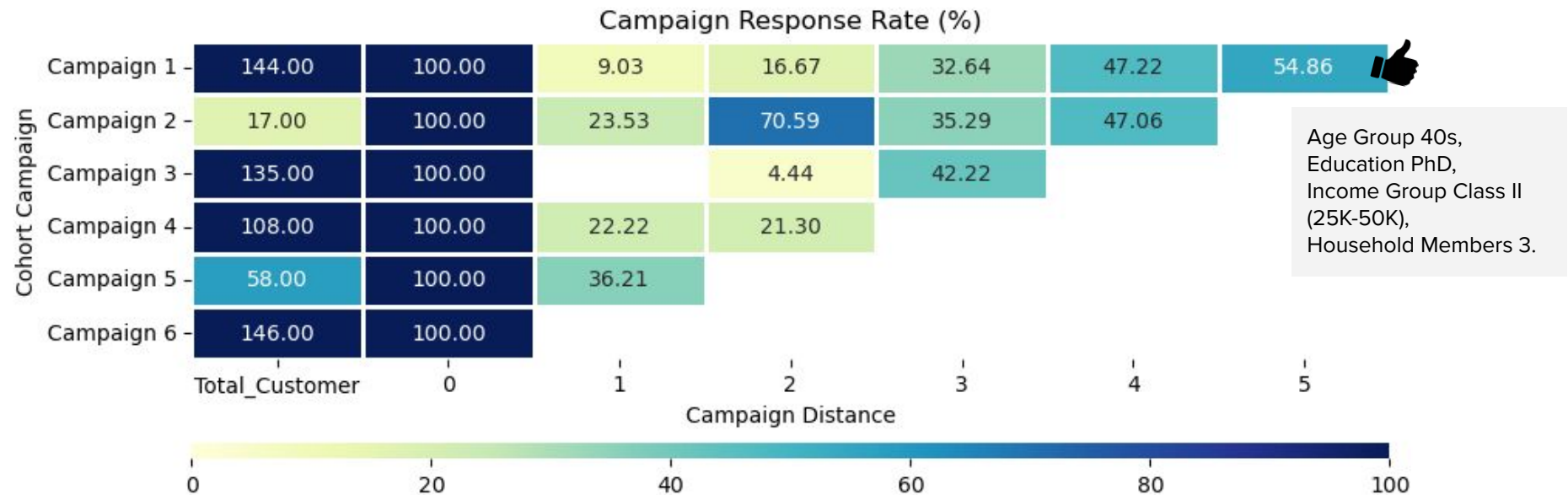
Campaign Response Analysis

Campaign Participation

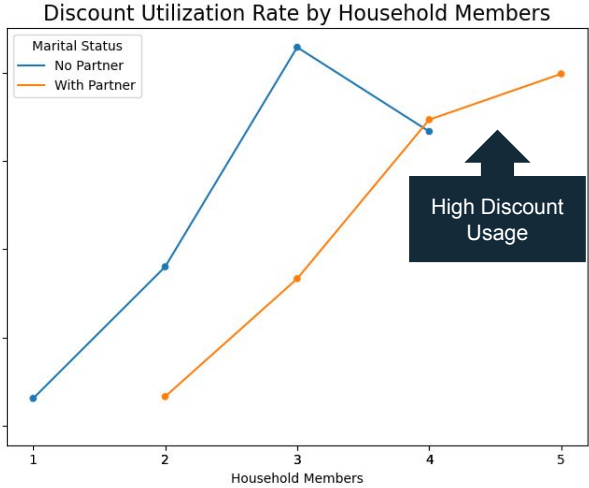
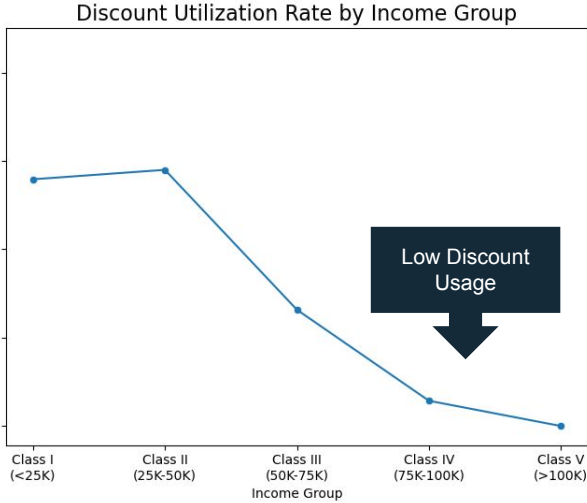
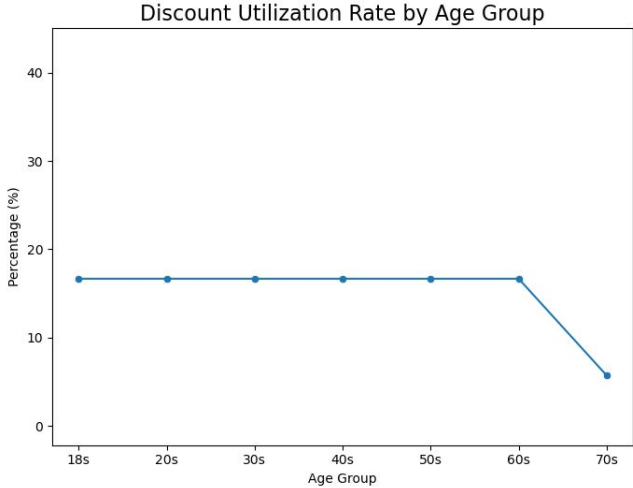


Peningkatan jumlah partisipasi customer, tetapi persentase kecil dibandingkan total customer seluruhnya

Campaign Cohort Analysis



Discount Utilization Rate



Conclusion

Insights Summary

01

**Tingkat Retensi dan Daya Beli
Customer yang Rendah**

- Secara jumlah, customer paling banyak ber-umur 30-49 tahun
- Secara CLV, customer nilai tertinggi berumur 50-79 tahun
- Customer cepat churn dan jarang melakukan repeat order

02

**Penjualan sangat Bergantung pada
Segment Market Medium-to-Low**

- Penjualan terlalu didominasi customer income medium-to-low
- Jumlah customer dengan income medium-to-up cukup banyak tetapi memiliki retensi rendah dan jarang melakukan repeat order

03

**Quantity Order dan Repeat Rate
Customer yang Rendah**

- Saat ini Supermarket sangat bergantung pada keluarga kecil/tidak berkeluarga yang menyebabkan sedikit qty sold
- Customer dengan keluarga besar bergantung pada diskon
- Marketing activity belum menarik segment tersebut

04

**Channel Pembelian Terfokus pada
Satu Jenis Channel**

- Channel penjualan masih didominasi oleh Store (offline)
- Visit dan preferensi website sebenarnya tinggi, akan tetapi Conversion Rate nya sangat rendah
- Aktivitas digital masih kurang menarik

05

**Customer Campaign Participation
sangat Rendah**

- Partisipasi campaign sangat rendah dari sebuah periode Campaign yang pernah dijalankan Supermarket
- Perlu promosi yang sifatnya targeted dan personalized berdasarkan customer profile dan behavior nya

Recommendations



Thank You
