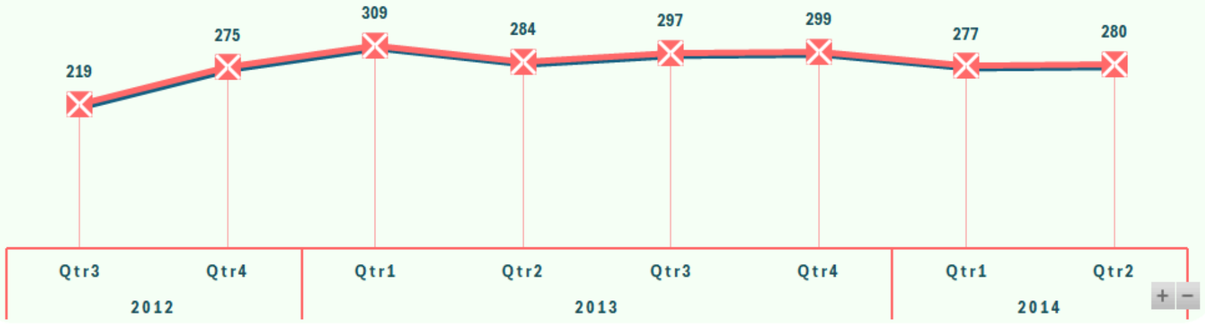
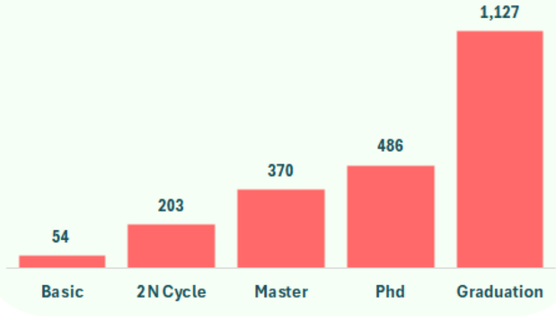
CustomersView

Total Customers	Total Complains	AVG Annual Income	Customers AVG Age
2.2K	21	$52.2K	55

Customers By Enrollment



Customers By Educational level



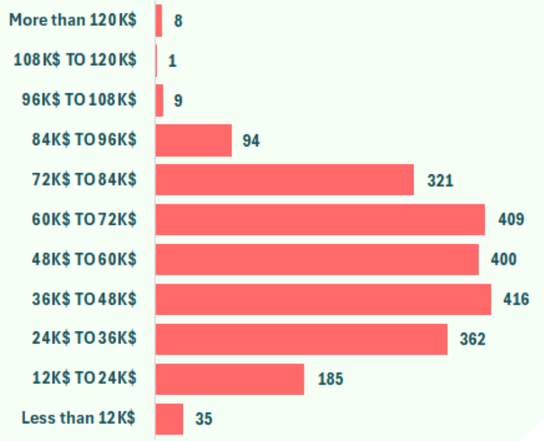
Enrollment Date

All Periods QUARTERS

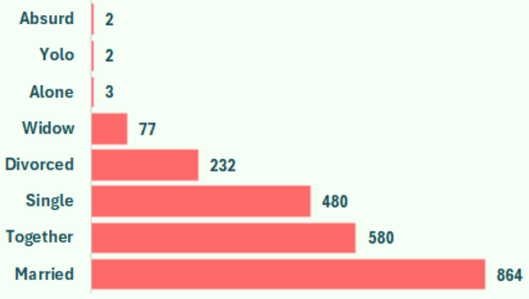
2012 2013 2014

Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1

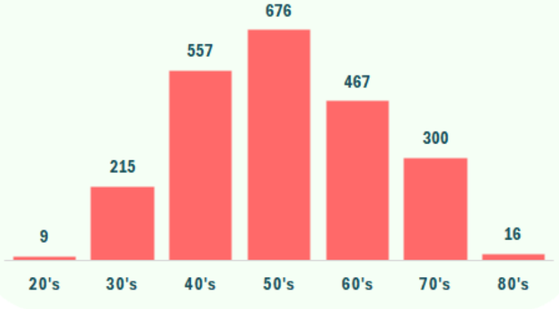
Customers Annual income Distribution



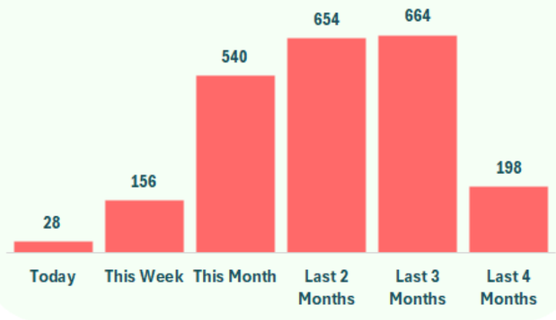
Customers By Marital Status



Customers age Distribution



Customers By Last Purchase

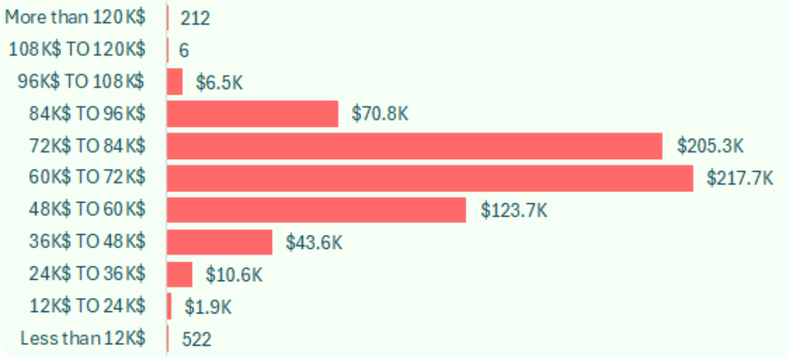


ProductsView

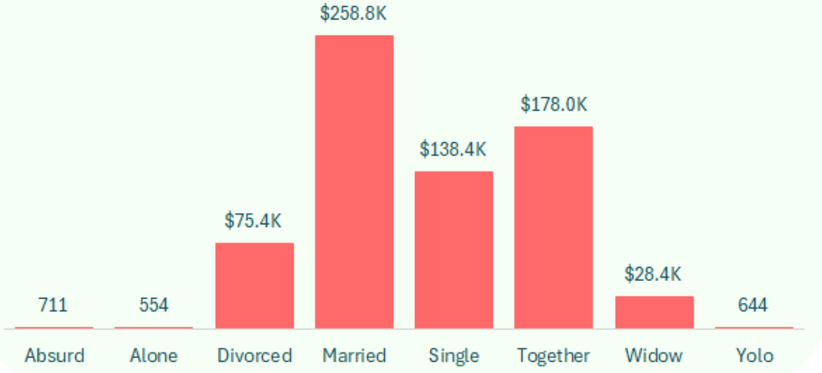
• Wine • Meat • Fish • Fruits • Sweets • Gold

Total Revenue	$1.4M
Wine Returns	$680.8K
Meat Returns	$374.0K
Fish Returns	$84.1K
Fruits Returns	$58.9K
Sweets Returns	$60.6K
Gold Returns	$98.6K

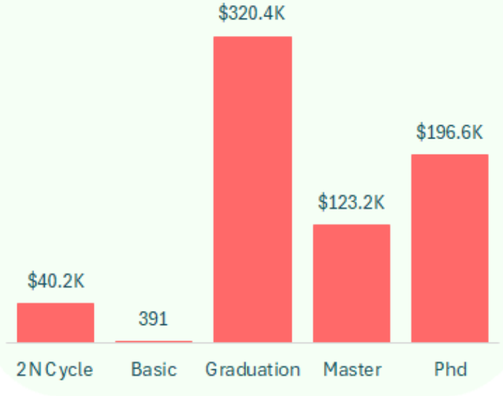
Wine Returns By Annual Incom



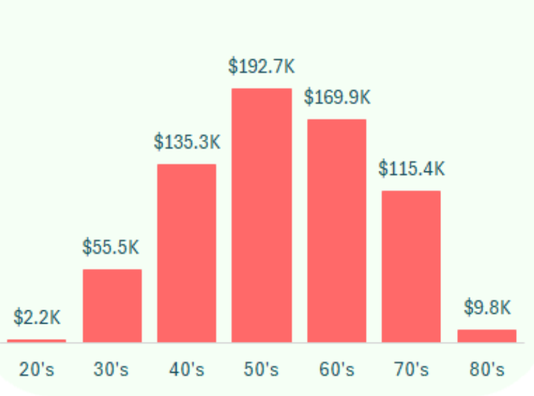
Wine Returns By Marital Status



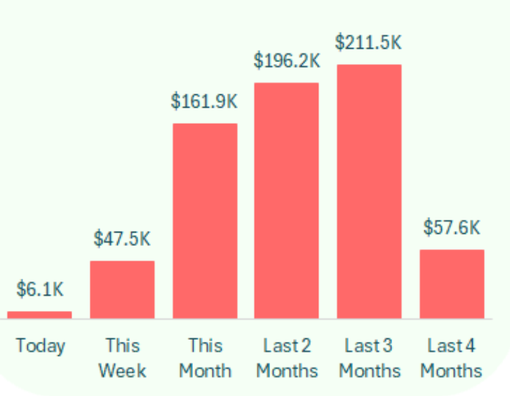
Wine Returns By Education Level



Wine Returns By AGE Distribution



Wine Returns By Last Purchase



PlaceView

WebVisits 11.9K

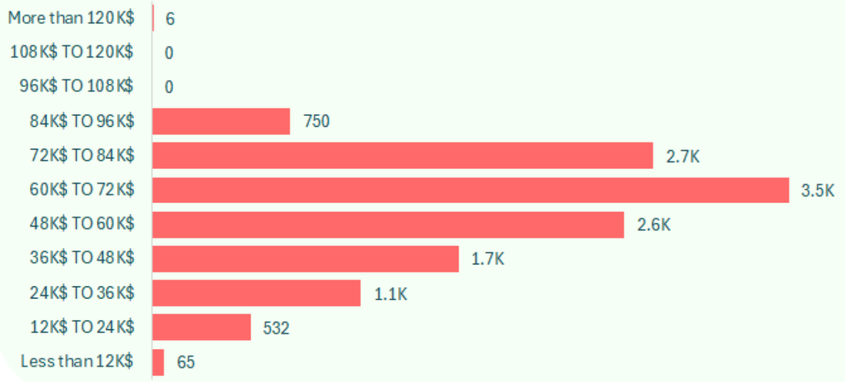
WebPurchase 9.2K

Catalog Purchase 6.0K

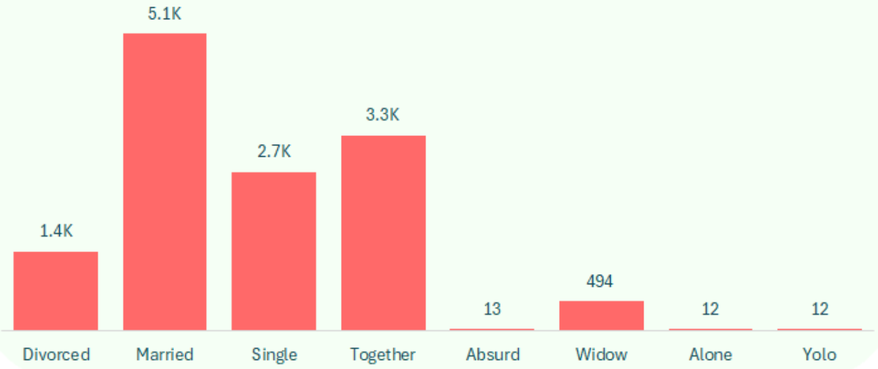
StorePurchase 13.0K

• Website • Catalog • Store

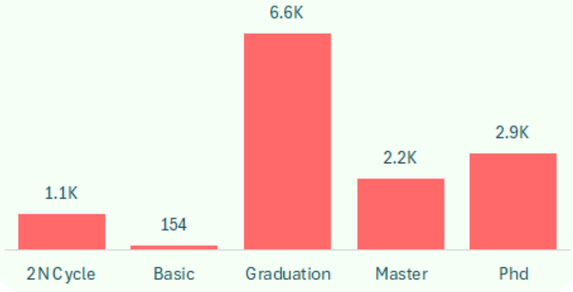
Total Putchase Through Stores By Annual Income



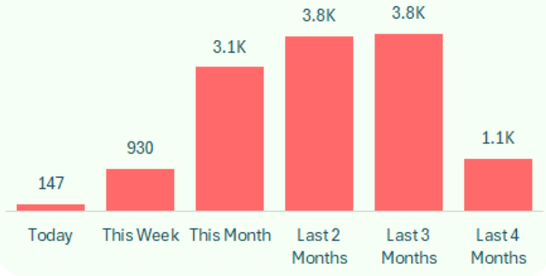
Total Putchase Through Store By Marital Status



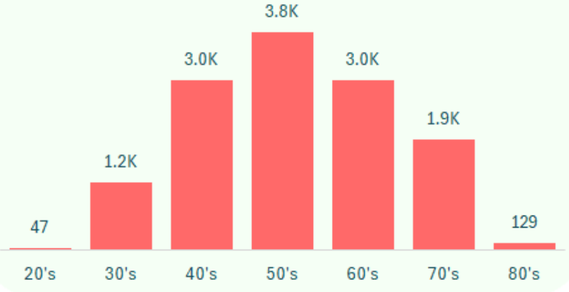
Total Putchase Through Stores By Education Level



Total Putchase Through Store By Last Purchase



Total Putchase Through Stores By AGE Distribution

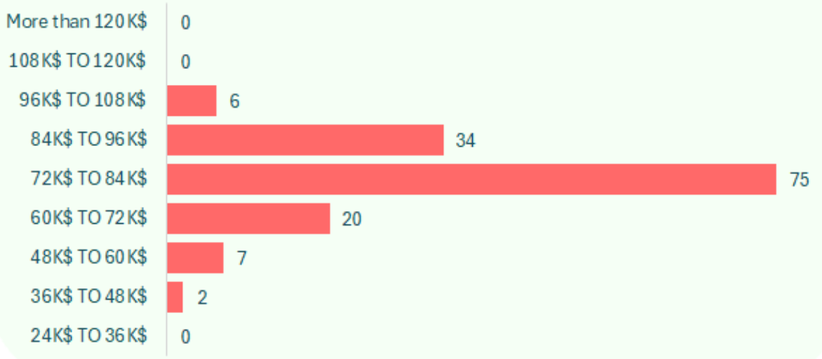


PromotionView

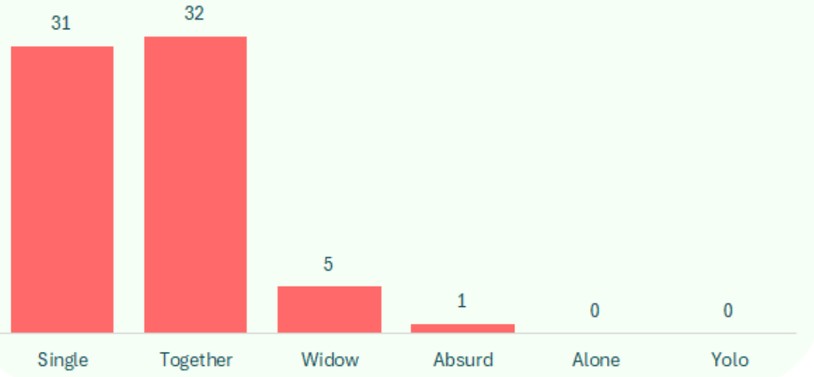
TotalDiscounts	5.2K
LastCamp	334
5thCamp	163
4thCamp	167
3rdCamp	163
2dCamp	30
1stCamp	144

• 1stCa • 2dCa • 3rdCa • 4thCa • 5thCa • LastCa

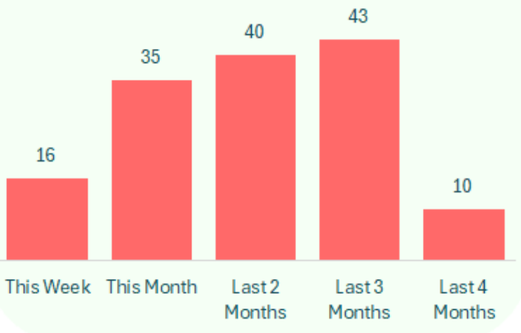
Responding to 1stCamp By Annual Income



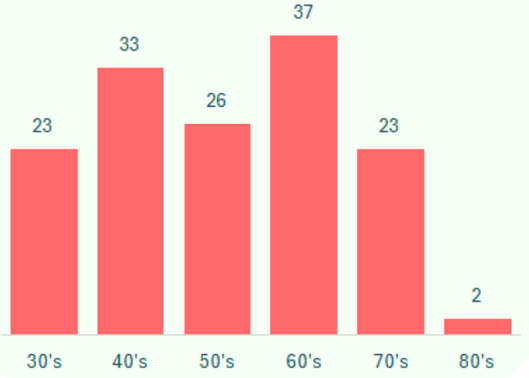
Responding to 1stCamp By Marital Status



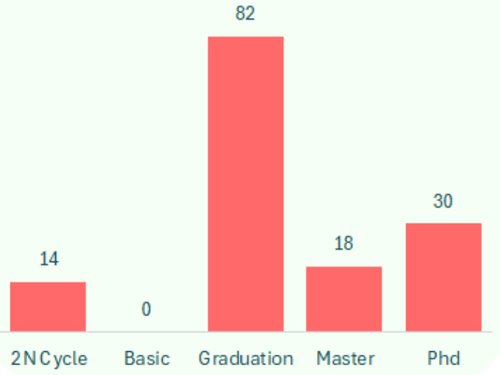
Responding to 1stCamp By Last Purchase



Responding to 1stCamp By AGE Distribution



Responding to 1stCamp By Education Level



By Kareem Shaaban

Customer Personality Analysis

TASK 3 WITH COGNORISE INFOTECH

Introduction

Customer personality analysis involves a comprehensive examination of a company's customer base to better understand their behaviors, preferences, and needs. This analysis enables businesses to tailor products, marketing strategies, and services to specific customer segments. By identifying the most likely buyers for a product, companies can allocate resources more efficiently and enhance customer satisfaction. In this project, I will explore customer data to segment the market and provide insights into customer behaviors, helping the business optimize its engagement strategies.

Cleaning &GATHERING

data model

- Finally, loaded the cleaned data into the data model and created connections between the different dimensions.

get the data

- Loaded the data into Power Query, duplicating it into four copies to create three dimensions for the customers' table, then removed unnecessary columns from each dimension.

duplicate,empty rows

- Removed duplicate and empty rows from each dimension and adjusted the data types of all columns.

trimming & cleaning

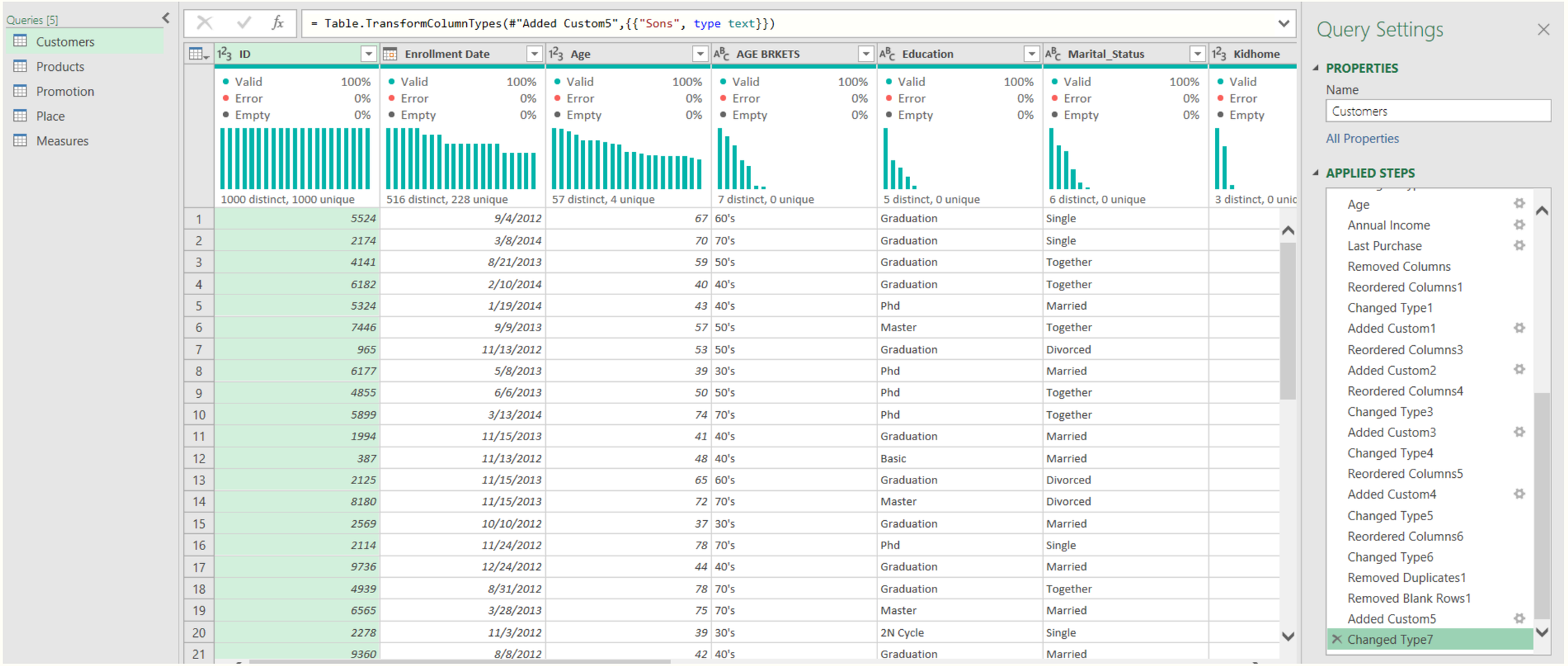
- Started by trimming and cleaning text columns in the customers' table, followed by addressing any date-related issues.

new columns

- Added new columns such as age, income brackets, number of children, and last purchase.

missing values

- Handled missing values in the annual income column by replacing null values with the average income for each customer, based on their educational level.


Queries [5]
Customers
Products
Promotion
Place
Measures
= Table.TransformColumnTypes(#"Added Custom5",{{"Sons", type text}})
ID
Enrollment Date
Age
AGE BRKETS
Education
Marital_Status
Kidhome
Valid 100%
Error 0%
Empty 0%
1000 distinct, 1000 unique
516 distinct, 228 unique
57 distinct, 4 unique
7 distinct, 0 unique
5 distinct, 0 unique
6 distinct, 0 unique
3 distinct, 0 unic
1 5524 9/4/2012 67 60's Graduation Single
2 2174 3/8/2014 70 70's Graduation Single
3 4141 8/21/2013 59 50's Graduation Together
4 6182 2/10/2014 40 40's Graduation Together
5 5324 1/19/2014 43 40's Phd Married
6 7446 9/9/2013 57 50's Master Together
7 965 11/13/2012 53 50's Graduation Divorced
8 6177 5/8/2013 39 30's Phd Married
9 4855 6/6/2013 50 50's Phd Together
10 5899 3/13/2014 74 70's Phd Together
11 1994 11/15/2013 41 40's Graduation Married
12 387 11/13/2012 48 40's Basic Married
13 2125 11/15/2013 65 60's Graduation Divorced
14 8180 11/15/2013 72 70's Master Divorced
15 2569 10/10/2012 37 30's Graduation Married
16 2114 11/24/2012 78 70's Phd Single
17 9736 12/24/2012 44 40's Graduation Married
18 4939 8/31/2012 78 70's Graduation Together
19 6565 3/28/2013 75 70's Master Married
20 2278 11/3/2012 39 30's 2N Cycle Single
21 9360 8/8/2012 42 40's Graduation Married
Query Settings
PROPERTIES
Name
Customers
All Properties
APPLIED STEPS
Age
Annual Income
Last Purchase
Removed Columns
Reordered Columns1
Changed Type1
Added Custom1
Reordered Columns3
Added Custom2
Reordered Columns4
Changed Type3
Added Custom3
Changed Type4
Reordered Columns5
Added Custom4
Changed Type5
Reordered Columns6
Changed Type6
Removed Duplicates1
Removed Blank Rows1
Added Custom5
Changed Type7

Custom Column

Add a column that is computed from the other columns.

New column name

Age

Custom column formula

```
= Date.Year(DateTime.LocalNow())
   -[Year_Birth]
```

Available columns

ID
Enrollment Date
Year_Birth
Education
Marital_Status
Kidhome
Teenhome

<< Insert

Learn about Power Query formulas

No syntax errors have been detected.

OK Cancel

Custom Column

Add a column that is computed from the other columns.

New column name

Annual Income

Custom column formula

```
= if [Income] = null then
      List.Average(
          Table.SelectRows(#"Age", each [Education] =
  [Education])[Income]
      )
  else
      [Income]
```

Available columns

ID
Enrollment Date
Year_Birth
Education
Marital_Status
Kidhome
Teenhome

<< Insert

Learn about Power Query formulas

No syntax errors have been detected.

OK Cancel

Custom Column

Add a column that is computed from the other columns.

New column name

Sons

Custom column formula

```
= if [Kidhome]=0 and [Teenhome]=0 then "NoChildren"
  else if [Kidhome]>0 and [Teenhome]=0 then "ChildernOnly"
  else if [Kidhome]=0 and [Teenhome]>0 then "TeenagerOnly"
  else if [Kidhome]>0 and [Teenhome]>0 then "Childern&
  Teenagers"
  else null
```

Available columns

ID
Enrollment Date
Age
AGE BRKETS
Education
Marital_Status
Kidhome

<< Insert

Learn about Power Query formulas

No syntax errors have been detected.

OK Cancel

Add Conditional Column

Add a conditional column that is computed from the other columns or values.

New column name

Last Purchase

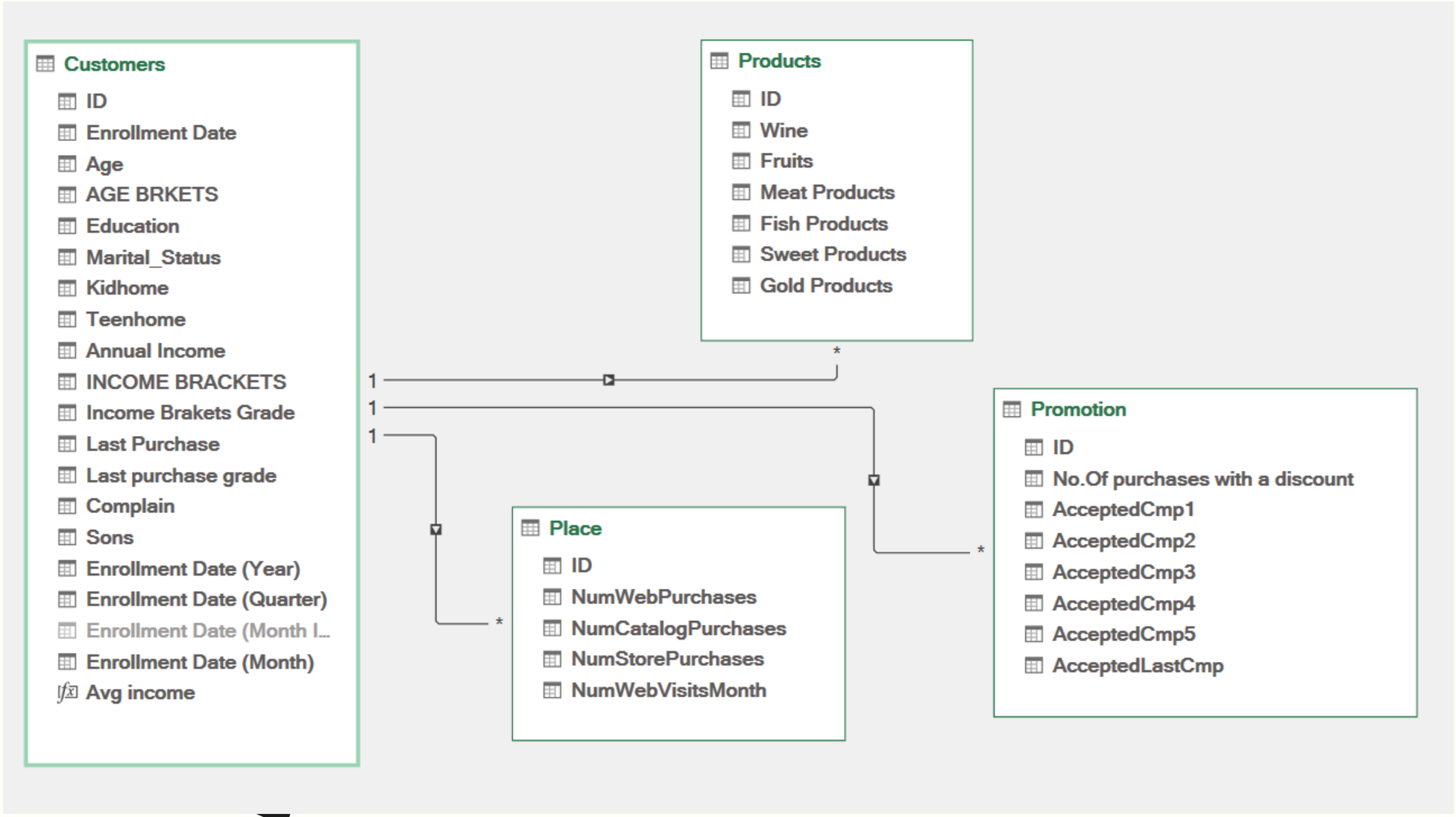
	Column Name	Operator	Value		Output
If	Recency	is greater than	90	Then	Last 4 Months
Else If	Recency	is greater than	60	Then	Last 3 Months
Else If	Recency	is greater than	30	Then	Last 2 Months
Else If	Recency	is greater than	7	Then	This Month
Else If	Recency	is greater than	0	Then	This Week
Else If	Recency	equals	0	Then	Today

Add Clause

Else

Recency

OK Cancel


Customers
ID
Enrollment Date
Age
AGE BRKETS
Education
Marital_Status
Kidhome
Teenhome
Annual Income
INCOME BRACKETS
Income Brakets Grade
Last Purchase
Last purchase grade
Complain
Sons
Enrollment Date (Year)
Enrollment Date (Quarter)
Enrollment Date (Month I...
Enrollment Date (Month)
Avg income
Products
ID
Wine
Fruits
Meat Products
Fish Products
Sweet Products
Gold Products
Place
ID
NumWebPurchases
NumCatalogPurchases
NumStorePurchases
NumWebVisitsMonth
Promotion
ID
No.Of purchases with a discount
AcceptedCmp1
AcceptedCmp2
AcceptedCmp3
AcceptedCmp4
AcceptedCmp5
AcceptedLastCmp
1
1
1
*
*
*

Analysis

About Customers

- What is the average age of our customers?
- What is the average annual income of our customers?
- How many total complaints have we received from customers?
- How are customers distributed across various categories, such as age, educational level, marital status, annual income, last purchase, and enrollment date?

About Promotions

- What is the total response to each campaign?
- How does the total response to each campaign vary across different customer categories?
- What are the total discounts given?

About Location

- What is the total purchase amount for stores, catalogs, and online channels?
- How many total website visits did we have last month?
- What is the total purchase amount by customer category for each location?

About Products

- What is the total revenue generated?
- What is the total revenue for each product category?
- What are the total returns for each product category, segmented by customer category?

FINDINGS

Product Insights

- Total revenue: $1.4M
- Wine returns: $680.8K
- Meat product returns: $374.0K
- Gold product returns: $98.6K
- Fish product returns: $84.1K
- Sweets returns: $60.6K
- Fruits returns: $58.9K

Customer Insights

- Total number of customers: 2.2K
- Total complaints: 21
- Average annual income of customers: $52.2K
- Average age of customers: 55
- The most common educational level is graduation, with 1,127 customers.
- The majority of customers are married, totaling 864 customers.

Promotions Insights

- Total response in the 1st campaign: 144
- Total response in the 2nd campaign: 30
- Total response in the 3rd campaign: 163
- Total response in the 4th campaign: 167
- Total response in the 5th campaign: 163
- Total response in the final campaign: 333
- Total discount offered: $5.2K

Location Insights

- Total website visits last month: 11.9K
- Online purchases: 9.2K
- Catalog purchases: 6.0K
- In-store purchases: 13.0K

SUMMARY

The objective of this project was to cluster and segment customers to better understand their behaviors and preferences. The analysis revealed key customer insights, such as an average age of 55, an average annual income of $52.2K, and a majority being married and graduates. Product data showed that while total revenue reached $1.4M, wine had the highest returns at $680.8K. The analysis also highlighted customers' purchasing behavior, with store purchases leading at 13.0K and online purchases at 9.2K. Promotional campaigns saw varied responses, with the last campaign having the highest at 333 responses. These insights are valuable for tailoring marketing strategies, improving product offerings, and enhancing customer engagement based on distinct customer segments.

THANK YOU!

Presented By Kareem Shaaban