

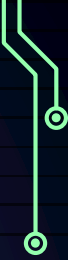
Customer Insights and Purchasing Behavior


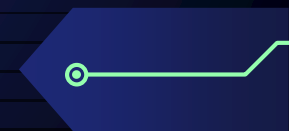
A Data-Driven Approach to Understanding Customer Patterns

Supervised by: Dr. Soha Nagy



Agenda



- Introduction to the Dataset and Purpose
 - Key Objective
 - Data Overview and Key Metrics Overview
 - Data Cleaning
 - Business Questions
 - Customer Behavior Analysis
 - Insights from Website Engagement
 - Product Category Breakdown
 - Complaint and Response Analysis
 - Sales Trends Over Time
 - Actionable Recommendations
 - Q&A
- 
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Overview about data



Data Source Verification:

The data is sourced from a comprehensive marketing dataset available on [Kaggle](#).

Purpose:

To analyze customer insights and purchasing behavior to drive informed business decisions. (e.g., “How can we improve customer engagement and maximize revenue?”).

Overview about data



Fields in the Data:

- **Age**: Age of the customer.
- **Customer_ID**: Unique identifier for each customer
- **Marital Status**: Marital status of the customer (e.g., single, married).
- **Education**: Education level of the customer (e.g., graduation, master's, PhD).
- **Income**: Annual income of the customer.
- **MntTotal**: Total amount of money spent by the customer.
- **Web Visits**: Number of times the customer visited the website.
- **Web Purchases**: Number of purchases made through the website.
- **Catalog Purchases**: Number of purchases made through catalogs.
- **Store Purchases**: Number of purchases made in physical stores.
- **Complaints**: complaints filed by the customer(e.g., Yes, No).
- **Accepted Campaigns**: Number of promotional campaigns accepted by the customer.

Key Objectives

- What are we trying to achieve with this analysis?
 - What are the **business goals** this analysis is trying to achieve?
 - How can we use customer behavior data to improve **engagement** and **revenue**?

Key Metrics

115.7M

Total Income

Total income for all customers who made Purchases.

1.3M

Total Sales

The total revenue from sales

2.3K

Total Number of Customers

Total number of unique customers who made a purchase

Key Metrics

11.9K

No. **Web Visits**

It is a measure of the website's popularity and how many people are visiting it.

9.1K

Web Purchases

Total number of purchases made through the market's website

13K

Store Purchases

Total number of purchases made in physical stores

Key Metrics

5.2K

Deals Purchases

The total number of purchases made through special deals or promotions



6K

Catalog Purchases


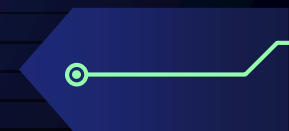
The total number of purchases made from a catalog





Business Questions



1. How do customer influence purchasing behavior?
 2. What are the top-performing product categories and sales channels?
 3. How effective are our marketing campaigns in driving sales?
 4. How do customer complaints impact overall spending and satisfaction?
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Customer Behavior Analysis

01

How do different age groups contribute to overall sales?

02

How does the level of education impact purchasing behavior?

03

Do married or single customers tend to spend more?

04

What income brackets generate the highest sales?

Insights from Website Engagement

01

Is there a direct relationship between website visits and purchases?

02

Do customers who visit the website more frequently also purchase more?

03

Which months or periods had the highest web engagement?

04

How do website visits differ based on customer Requests?

Product **Category** Breakdown

01

What are the top-selling product categories?

02

Are there any categories that consistently underperform?

03

Which product categories contribute the most to revenue growth?

04

How does customer age or income influence category preferences?

Complaint and Response Analysis

01

Do customers who file complaints spend less than those who don't?

02

How many customers who file complaints continue to make purchases afterward?

03

What is the impact of complaint resolution on customer loyalty?

04

Is there a specific product category that generates more complaints?

Sales Trends Over Time

01

Which months show the highest sales growth?

02

Are there any noticeable seasonal sales patterns?

03

How do sales trends correspond with marketing campaigns or external events?

04

Is there a consistent upward or downward trend in sales?



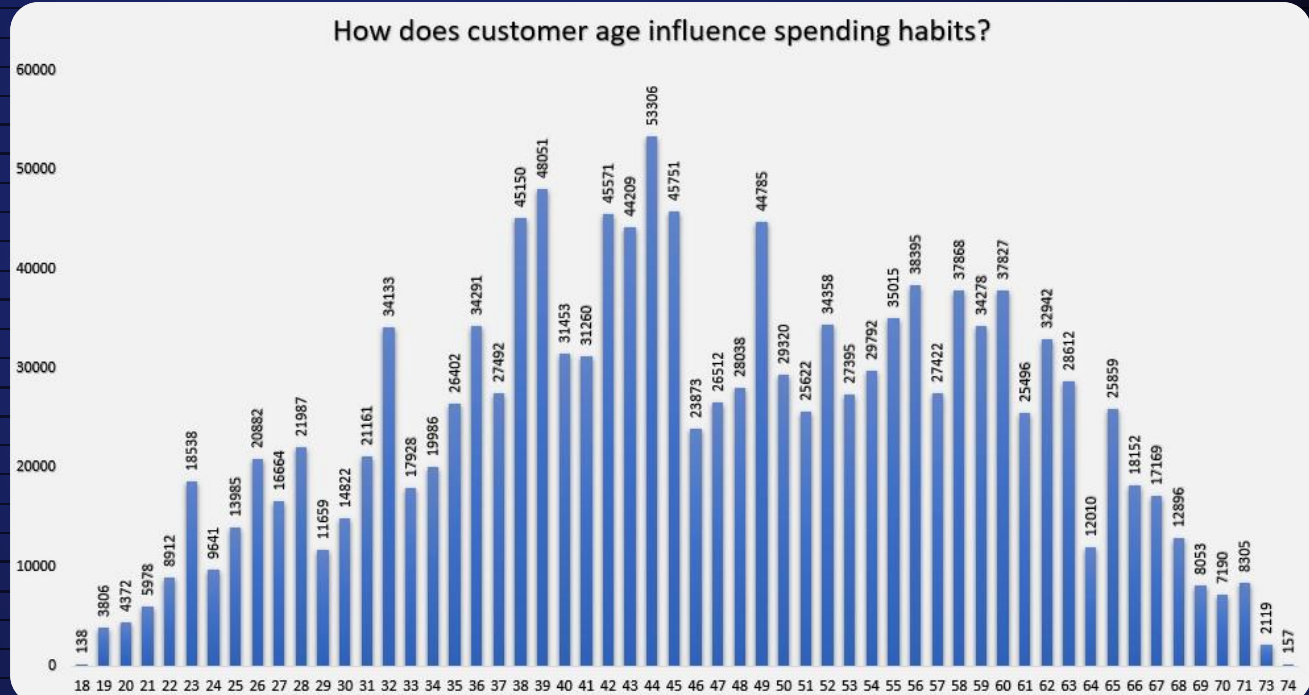
01

Customer Behavior Analysis

In this section, you want to focus on how customer attributes (such as age, marital status, and income) affect their purchasing behavior

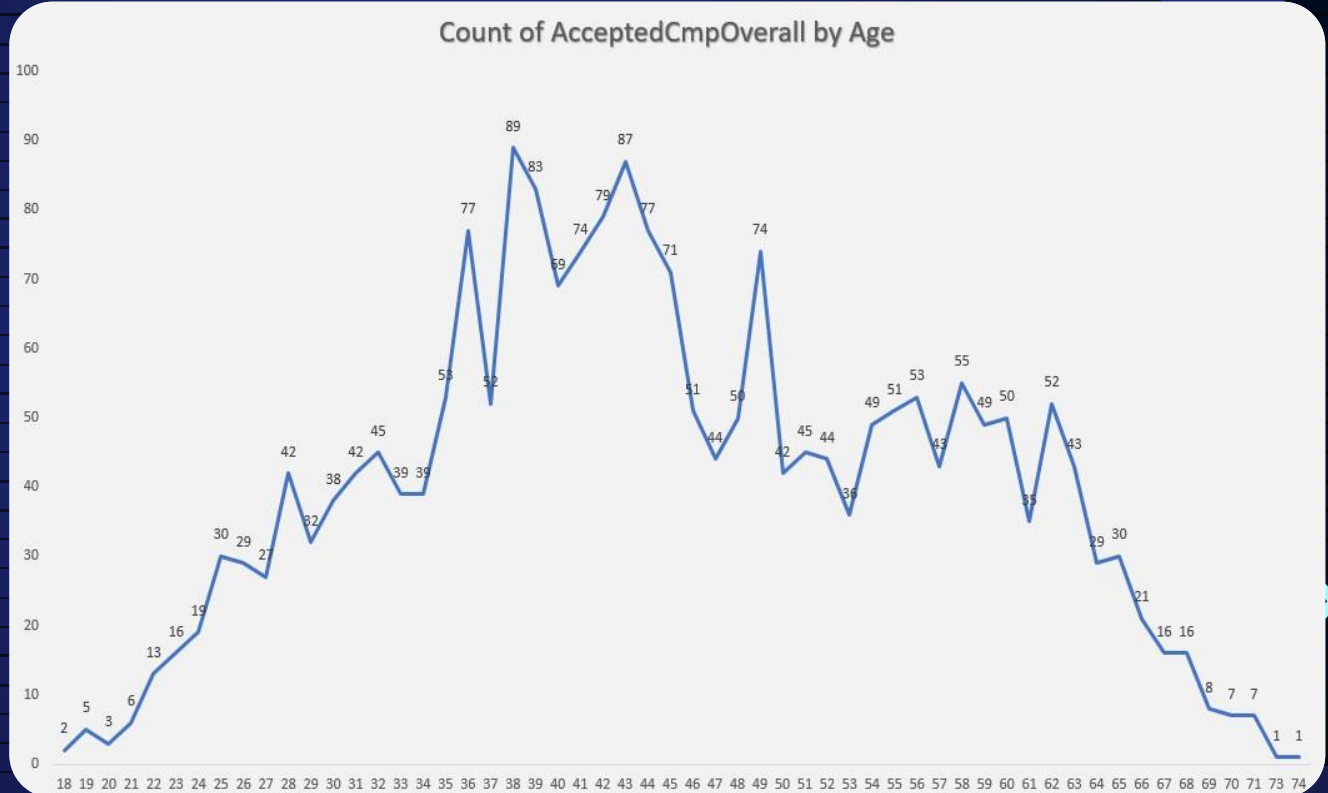
How does customer age influence spending habits?

This chart examines how income correlates with customer spending, providing a breakdown of income brackets and how much they contribute to total sales.



Age Distribution and Spending Behavior

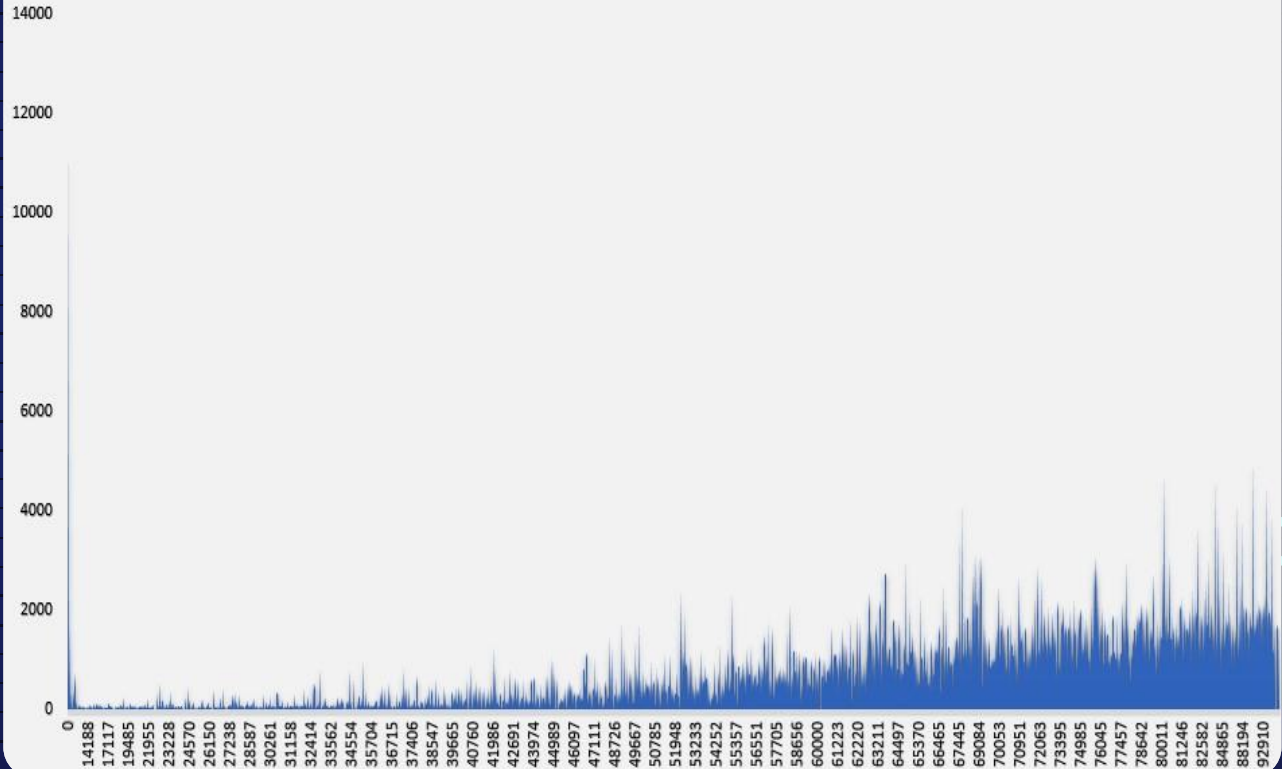
This line chart illustrates how different age groups respond to marketing campaigns, measured by the number of accepted campaigns per age bracket.



Income vs. Total Spending

This is Area Chart examines how income correlates with customer spending, providing a breakdown of income brackets and how much they contribute to total sales.

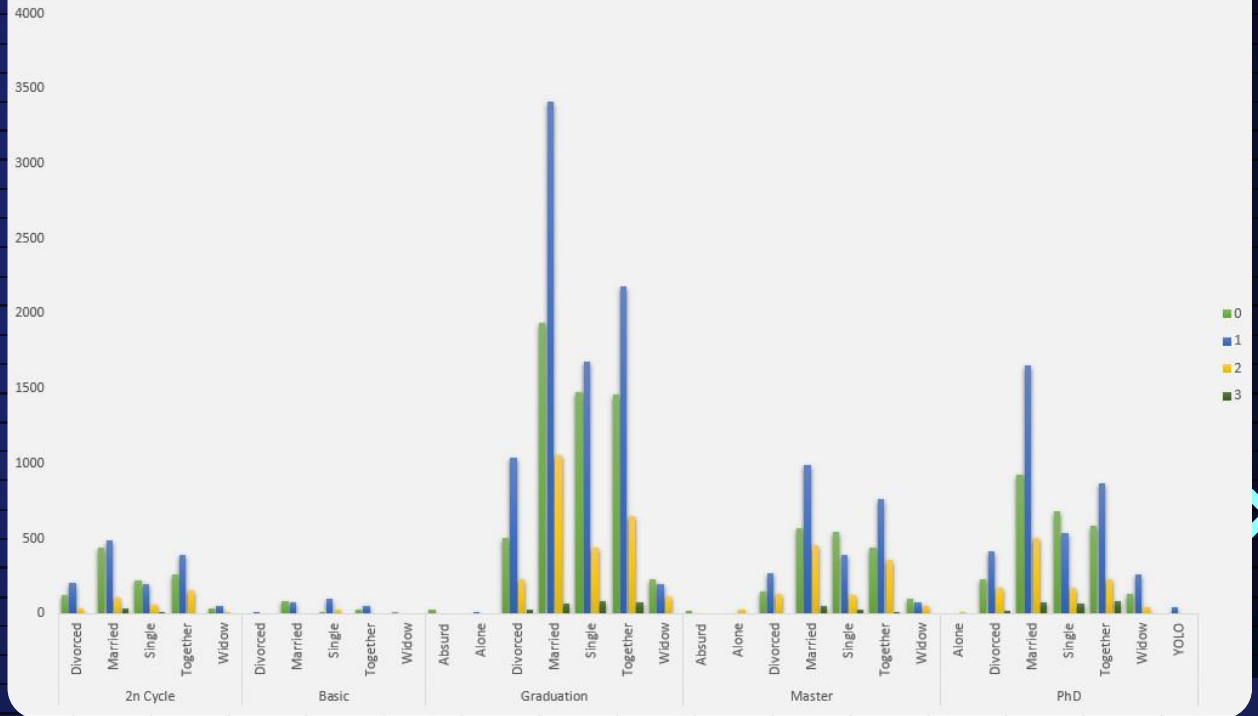
Relationship Between Income and Total Spending



Marital Status, Educational Level, Number Of Childs and Number of Purchases

This chart visualizes how various personal factors such as marital status, education, and number of children influence the number of purchases a customer makes.

Total Number Of Purchases By Marital Status, Education Level and Number of Childs





02

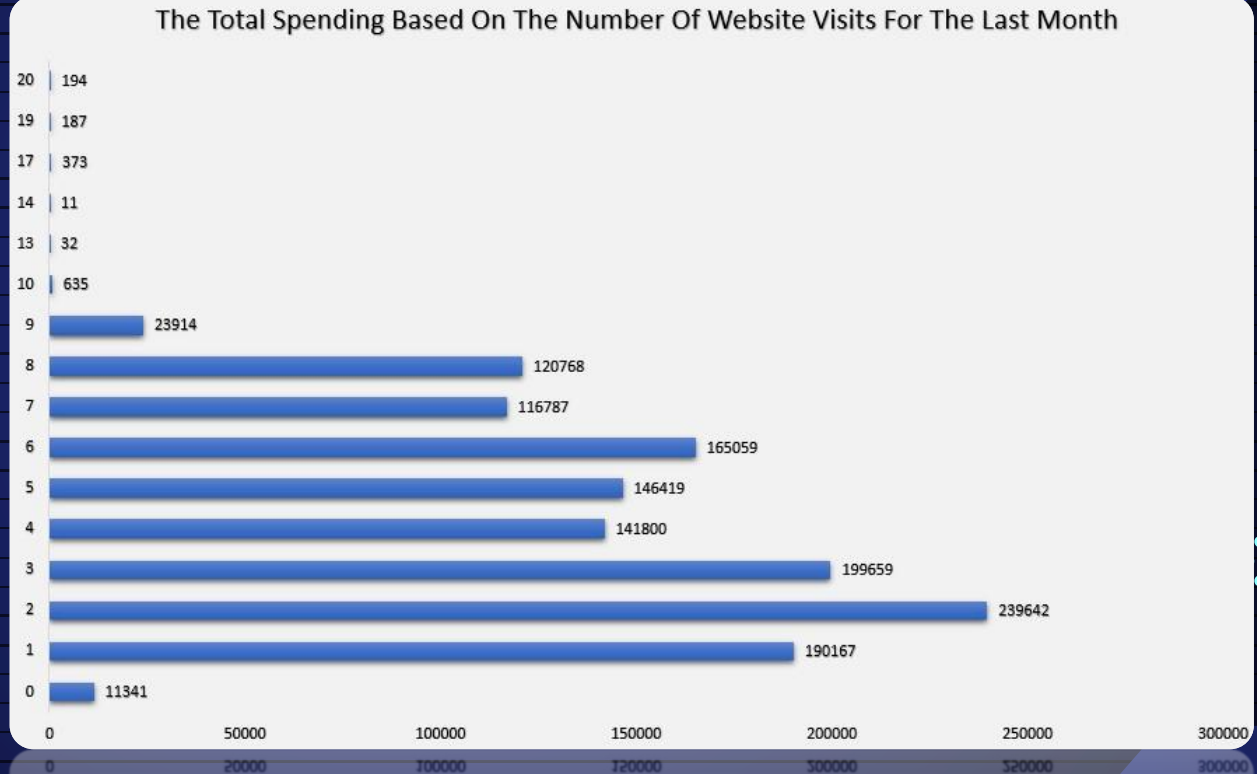
Insights from Website Engagement.....

This section focuses on how customer interactions with the website affect purchasing behavior.



The Total Spending Based On The Number Of Website Visits For The Last Month

This horizontal bar chart shows the relationship between website visits and the total number of purchases.



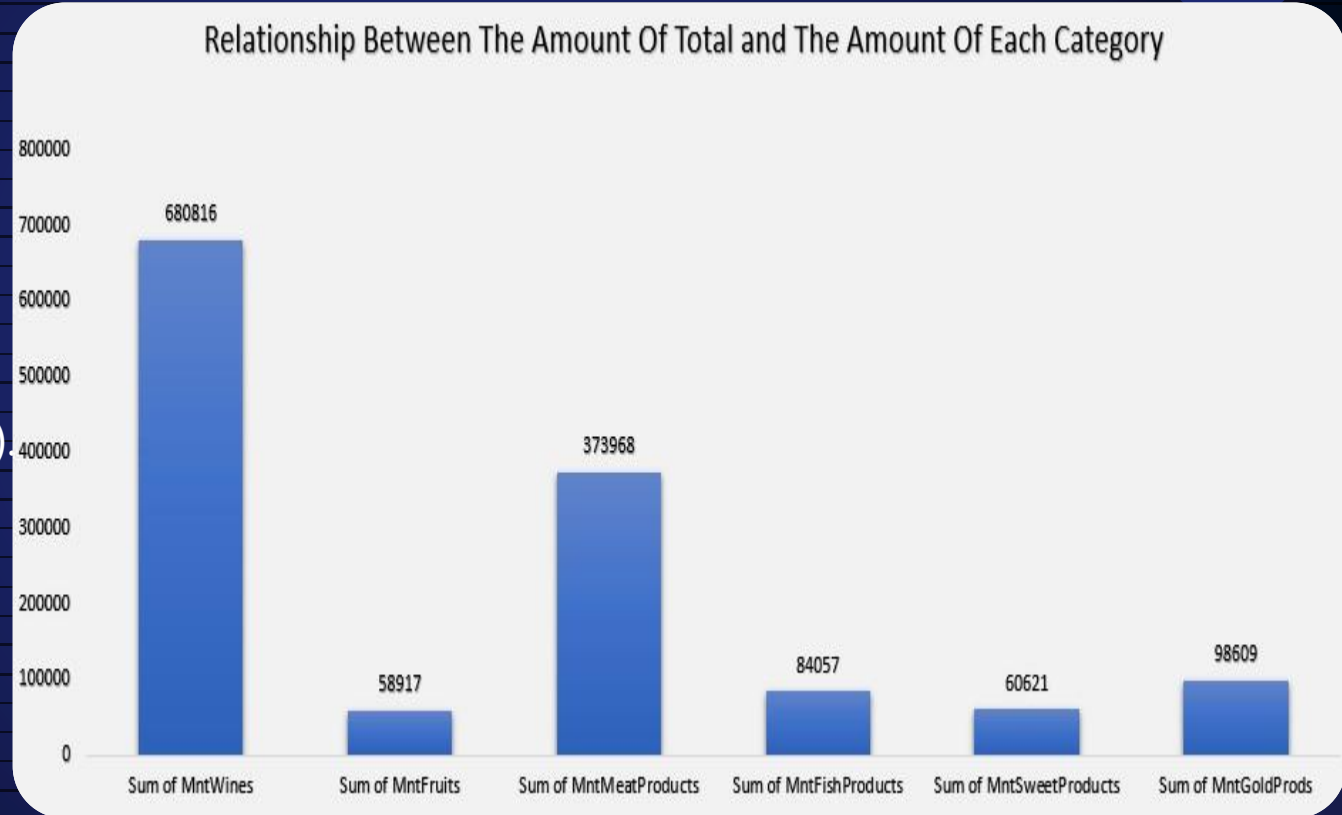
03

Product Category Breakdown.....

This section dives into the performance of different product categories.

Relationship Between The Amount Of Total and The Amount Of Each Category

This bar chart illustrates the total amount spent across different product categories (Wine, Fruits, Meat, Fish, Sweets, Gold Products).



04



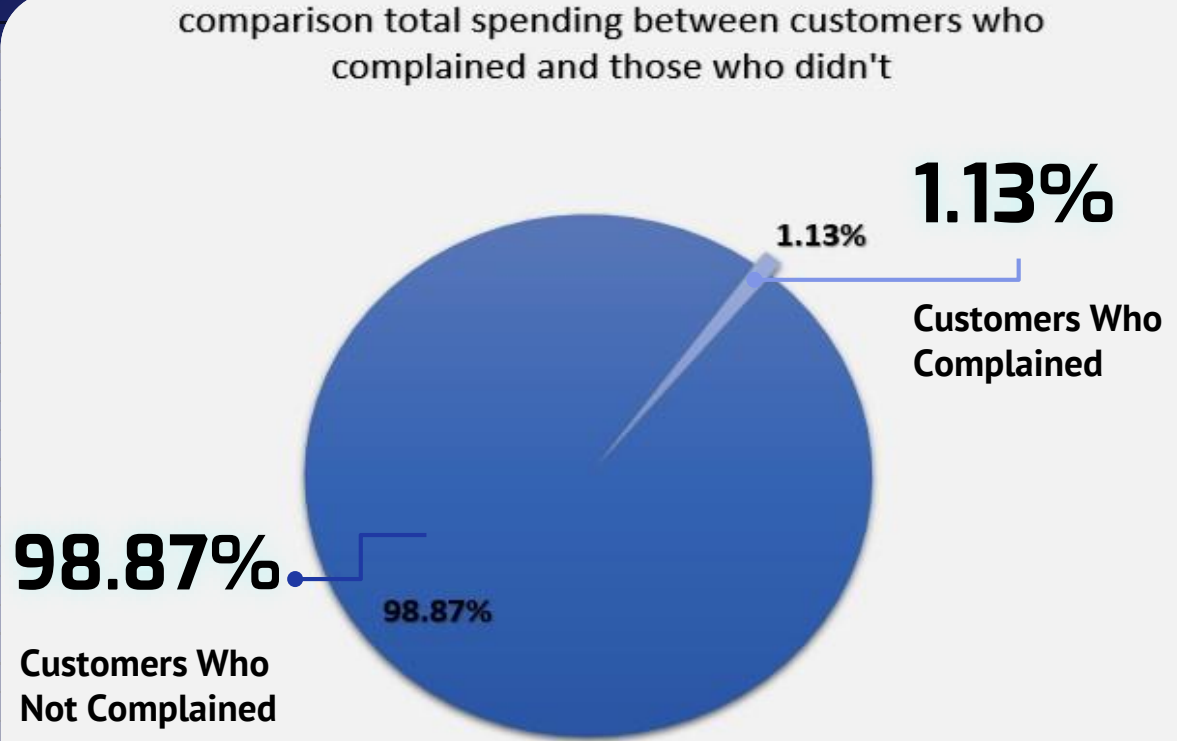
Complaint and Response Analysis:

the focus is on how complaints affect customer satisfaction and spending.



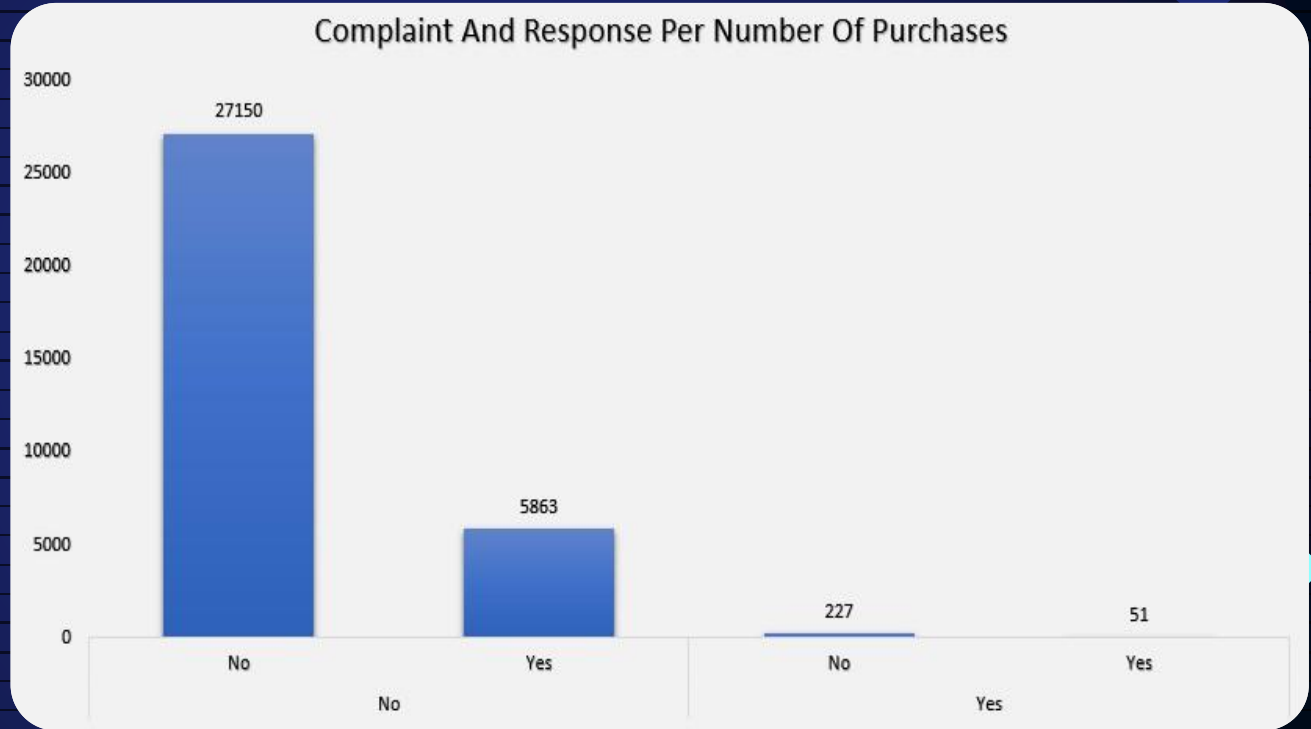
Comparison of Total Spending Between Customers complaints

This Pie chart compares the total spending of customers who filed complaints versus those who didn't.



Complaint And Response Per Number Of Purchases

The bar chart breaks down the number of complaints and Responses based on the number of purchases.



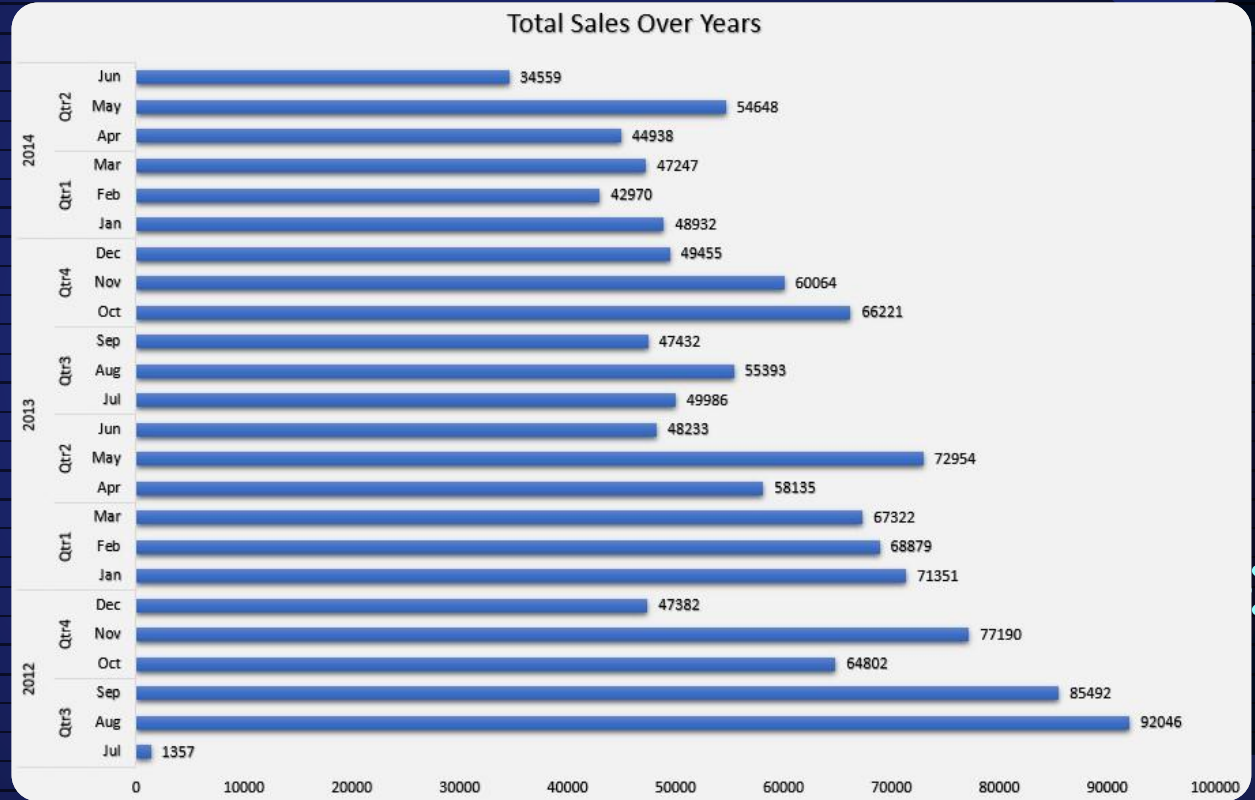


05

Sales Trends Over Time

Age Distribution and Spending Behavior

The horizontal bar chart breaks down total sales by year and month, showing trends over time.





»»»» Actionable Recommendations

Improving Customer Engagement and Revenue



Insight VS. Action

Enhance Targeted Campaigns by Age Group



Insight

Customers aged 30-40 show the highest engagement with marketing campaigns.

Action

Focus on creating personalized campaigns for each age group, leveraging their preferences and spending behavior





Insight VS. Action

Increase Online Sales by Optimizing Website Experience



Insight

Website visits result in significant purchases, but web purchases are still lower than store purchases.



Action

Improve the user experience on the website by enhancing ease of navigation and streamlining the checkout process.



Insight VS. Action

Focus on High-Performing Product Categories



Insight

Certain categories, such as
Wines drive the most revenue.



Action

Prioritize stocking and marketing
top-selling categories and Run
specific campaigns and cross-
promotions based on these
products to maximize sales and
customer interest.

»»»» Actionable Recommendations

Increasing Customer Satisfaction and Long-Term Growth



Insight VS. Action

Address Customer Complaints Proactively



Insight

Customers who file complaints tend to spend less and have lower satisfaction levels.

Action

Implement faster response mechanisms for complaints, Offer incentives like discounts or free products to customers who file complaints to turn negative experiences into positive outcomes.





Insight VS. Action

Drive Engagement Through Website Visits



Insight

High website traffic can lead to more sales when properly harnessed.

Action

Use retargeting ads and follow-up emails for users who visit but do not make purchases, Implement loyalty programs that encourage repeat visits and purchasing behavior.





Insight VS. Action

Leverage Seasonal Sales Trends



Insight

Sales show certain seasonal or time-based trends.



Action

Align marketing efforts with these peaks to maximize sales, run promotional campaigns during peak months or optimize inventory and staffing around these times.





Our **primary** target

is to enhance customer engagement and increase revenue by leveraging insights into customer behavior and purchasing patterns.

Thanks!

Do you have any questions?

an1977304@gmail.com

Made By: Ahmed Nour Yahya

