

# SUPERMARKET BUSINESS PLAN

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# BACKGROUND ON SUPERMARKETS

## 2.7% growth per year

Market size of the Supermarket industry has grown 2.7% per year, on avg.

## 3,500 customers per day

Average number of customers in one supermarket chain is 3,500 people per day.

## 1.6x visits per week

Americans visit the supermarket 1.6x per week.



# BUSINESS IMPACT

## Client



## Why it matters

Due to **market competition**, supermarkets must establish clear points of **differentiation** in order to **increase profit margins**.



# TRADER JOE'S

## PROBLEM

How can TJ's gain a competitive advantage and increase profits?

## SOLUTION

Build a clustering model to determine customer & product segments with high profits.

# PROJECT GOAL

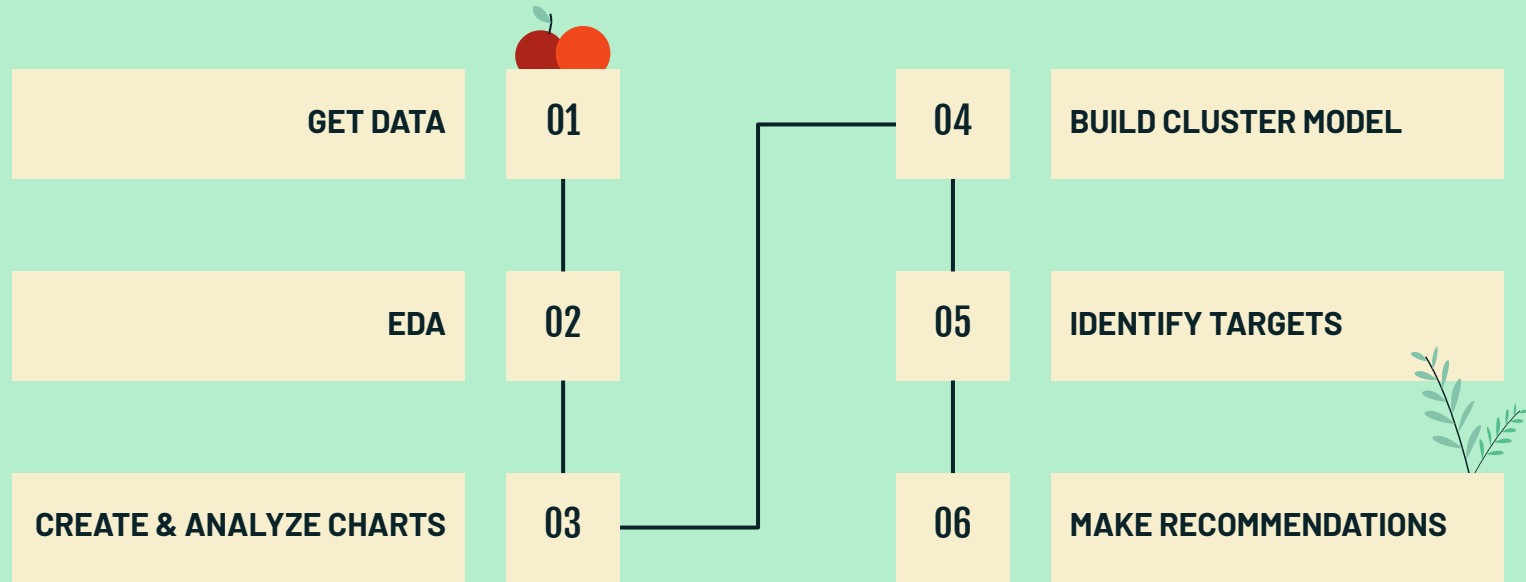
## CLUSTERING MODEL

Use a clustering model to segment customers & products to maximize the value of each customer

## IMPACT HYPOTHESIS

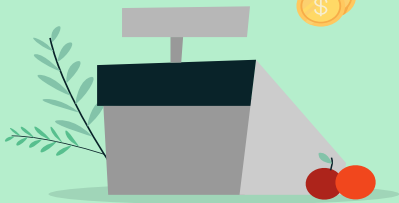
Having an area designated for best-selling items for majority of consumers will increase profits

# METHODOLOGY

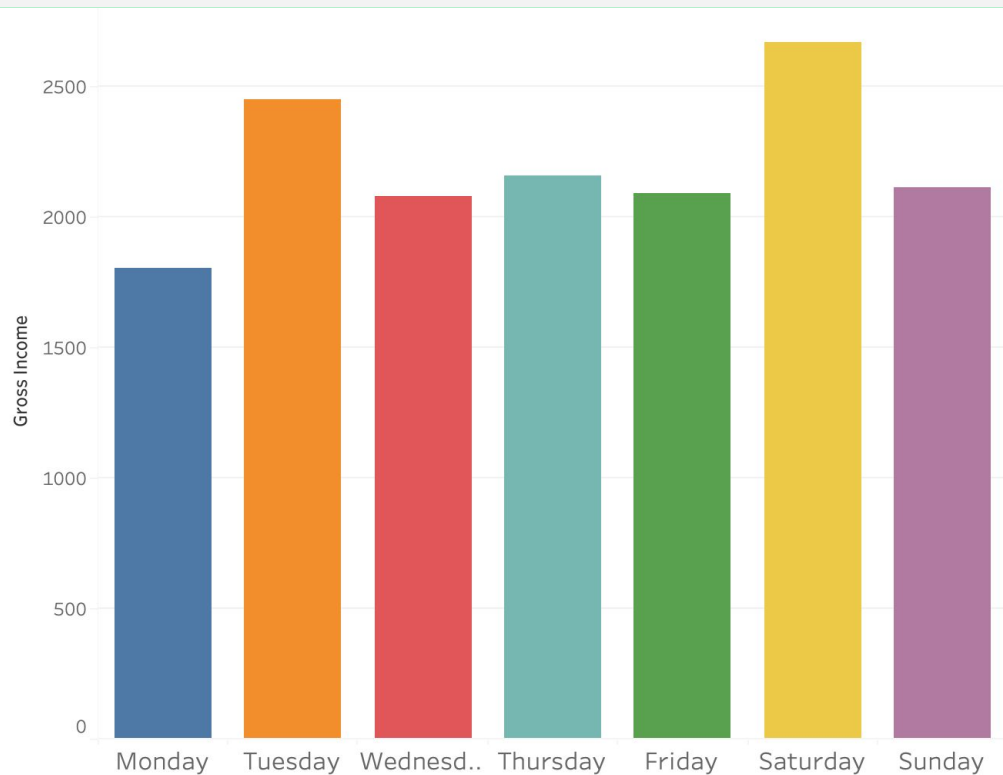


# Total Gross Income by Day of Week

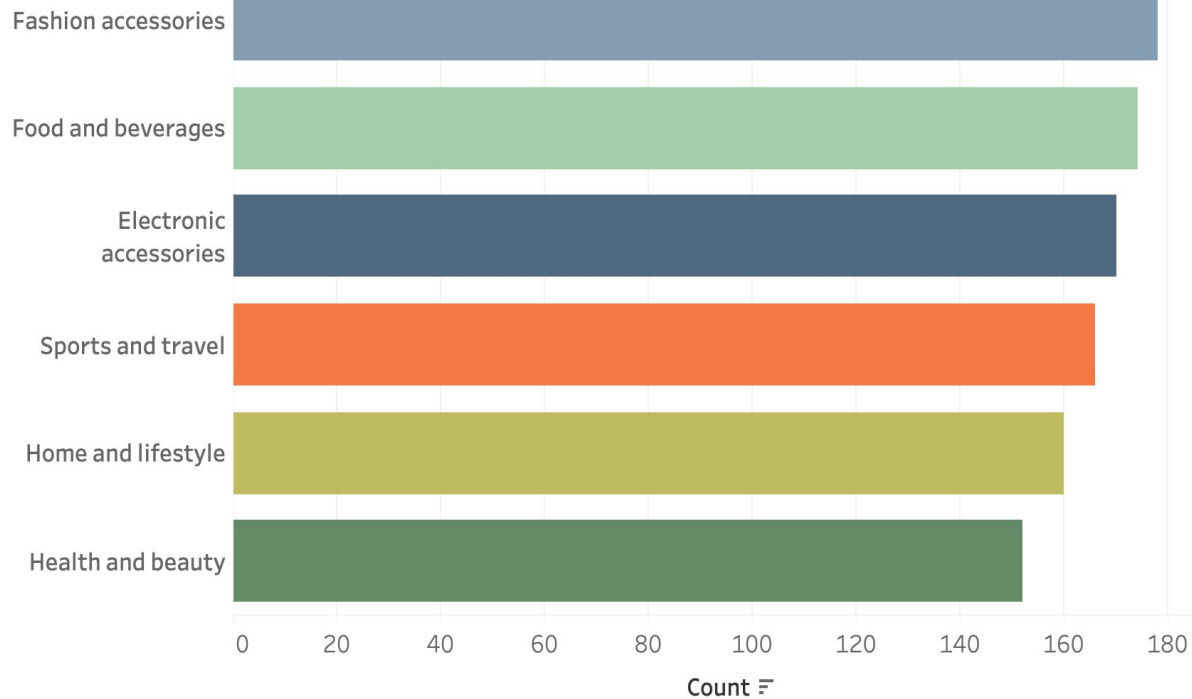
**Tuesday & Saturday  
are the most  
profitable DOWs**



\*data collected over 3 months



# Total Count of Products Purchased



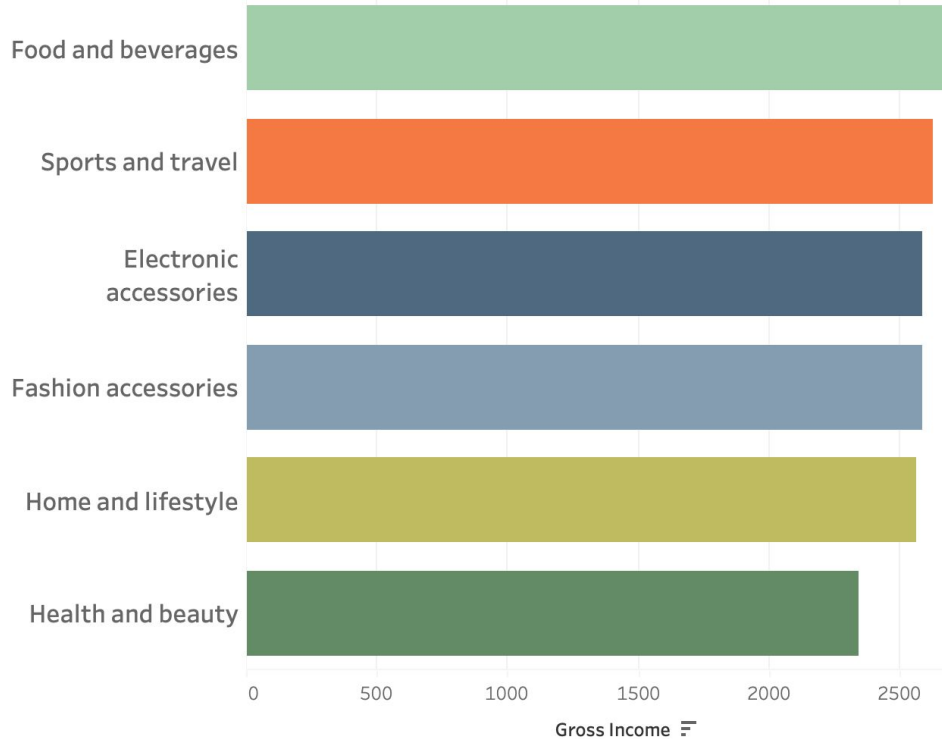
**Fashion & Food/beverage items are the most purchased products**



*\*data collected over 3 months*



# Total Income from Products Purchased



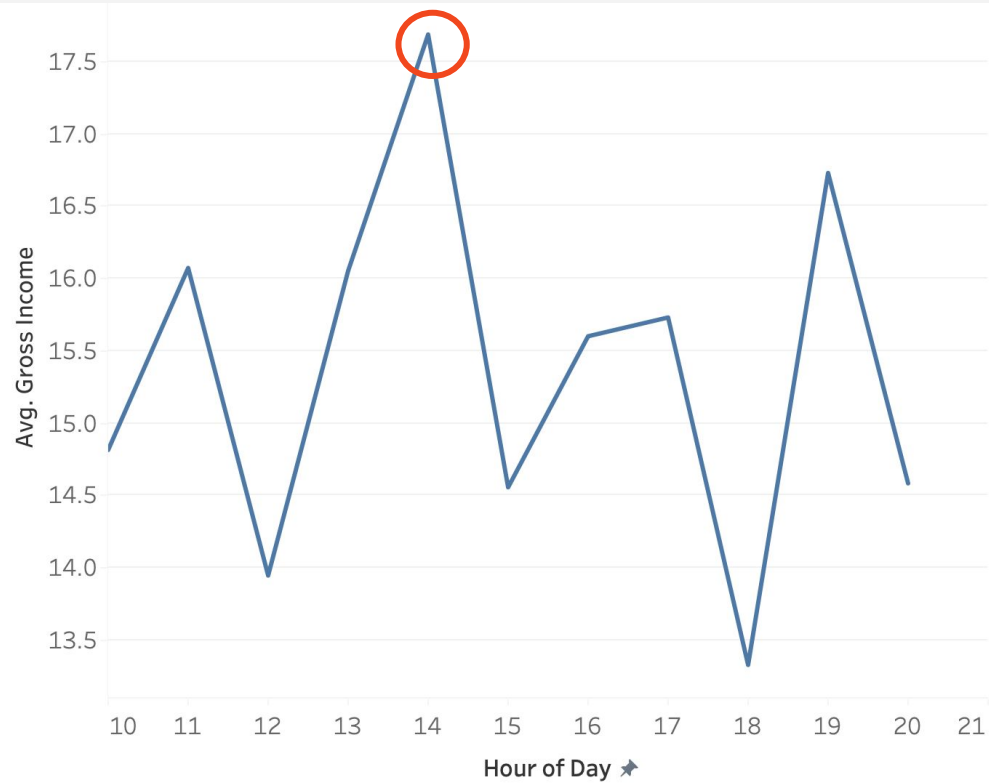
**Food/beverage & sports/travel items bring in the most income**



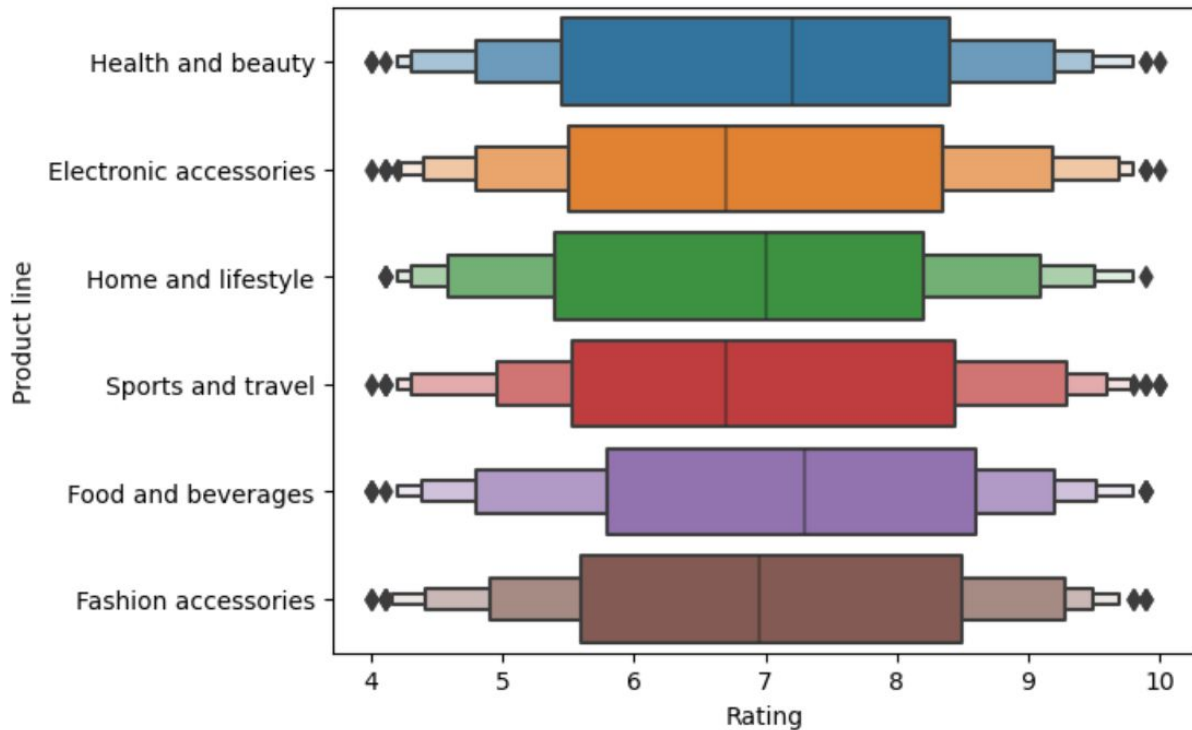
\*data collected over 3 months

# Average Income per Hour

Peak selling hour:  
2pm



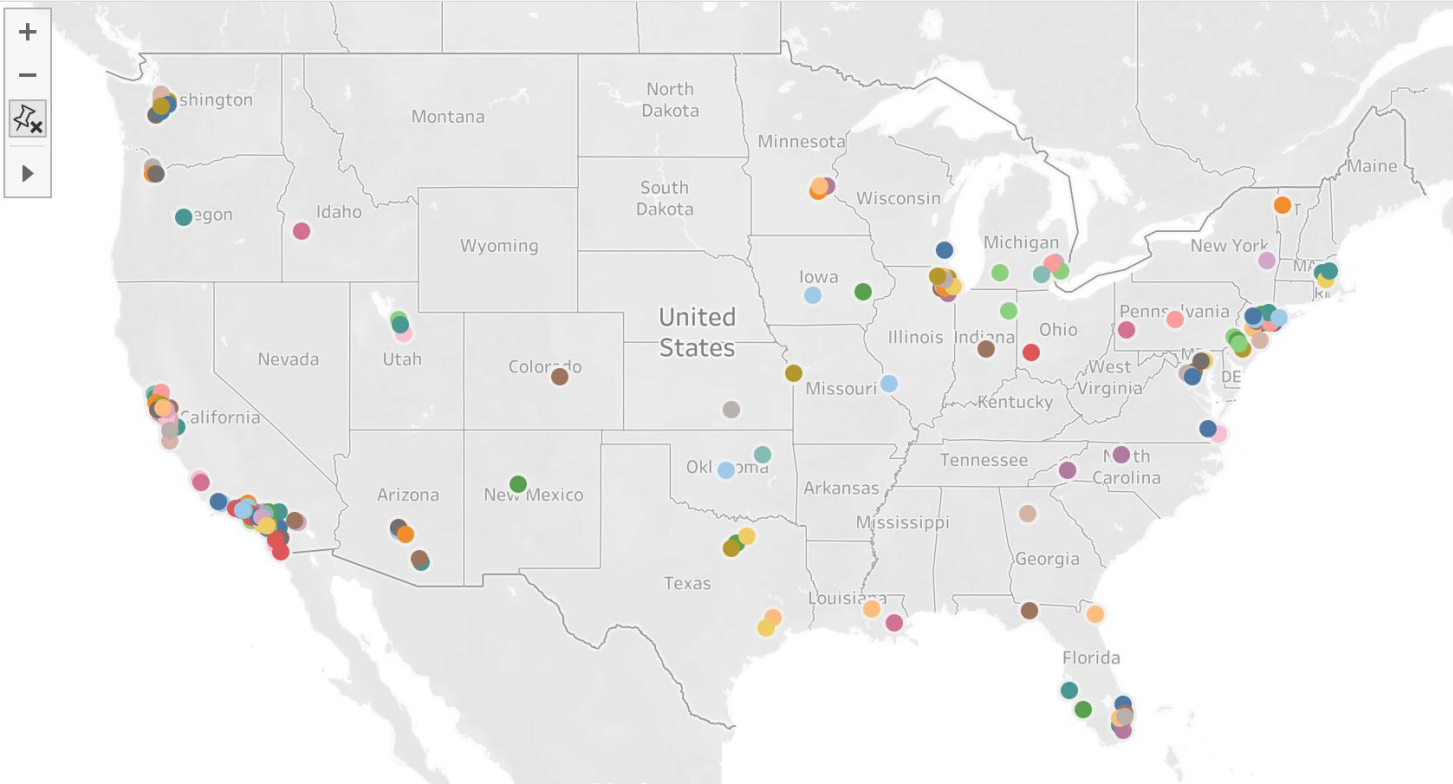
# Ratings per Product line



Food/beverage  
items have a  
slightly higher  
average rating



# Trader Joe's Locations



# WHAT DOES SUCCESS LOOK LIKE?



## **Short term success:**

Profits increase in 1 segment

## **Long term success:**

Profits increase across each segment

# Recommendations

- Offer sales/senior discounts on slow DOW
- Increase prices of best-selling items, put on easily accessible shelves
- Group items by interest (*ie: wine near cheese*)
- Cut health/beauty products that don't profit
- Increase staff during 2pm shift to restock items & reduce wait time in check-out lane





# FUTURE WORK

- Get insight into subcategories (ie: health/junk food)
- Find data on customer demographics to better market consumers
- Use location data to see if certain products sell better in other stores
- Time spent in store

# THANKS





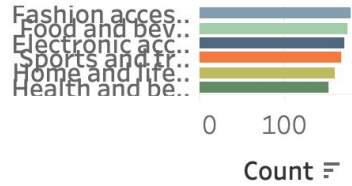
# APPENDIX

<https://www.statista.com/statistics/251728/weekly-number-of-us-grocery-shopping-trips-per-household/>

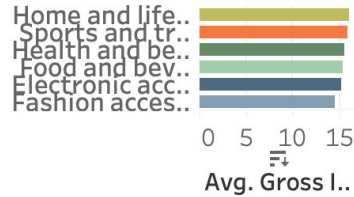
[https://public.tableau.com/app/profile/lily7263/viz/Project3\\_3\\_16445087510140/Dashboard1?publish=yes](https://public.tableau.com/app/profile/lily7263/viz/Project3_3_16445087510140/Dashboard1?publish=yes)

<https://www.businessinsider.com/typical-trader-joes-shopper-demographic-younger-married-earning-80k-income-2021-9>

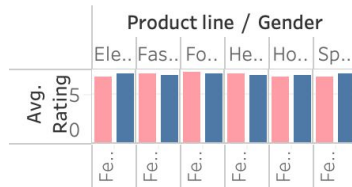
### Count of Product Purchased



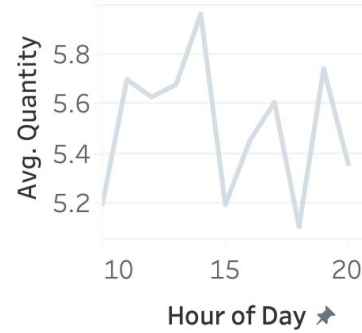
### Income from Products Purchased



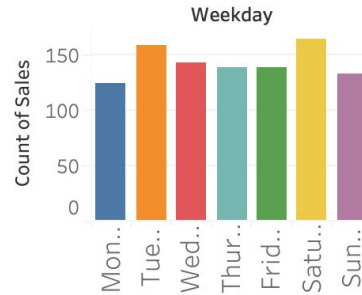
### Product Rating per Gender



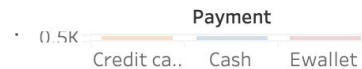
### Product Sales per Hour



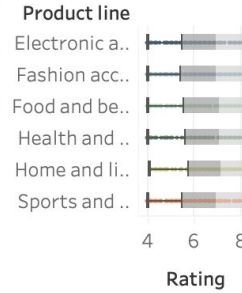
### Daily Sales by Day of Week



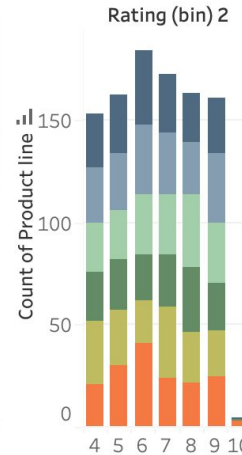
### Payment Method



### Boxplot: Product Rating



### Rating per Product



## GENDER COUNT & CUSTOMER TYPE

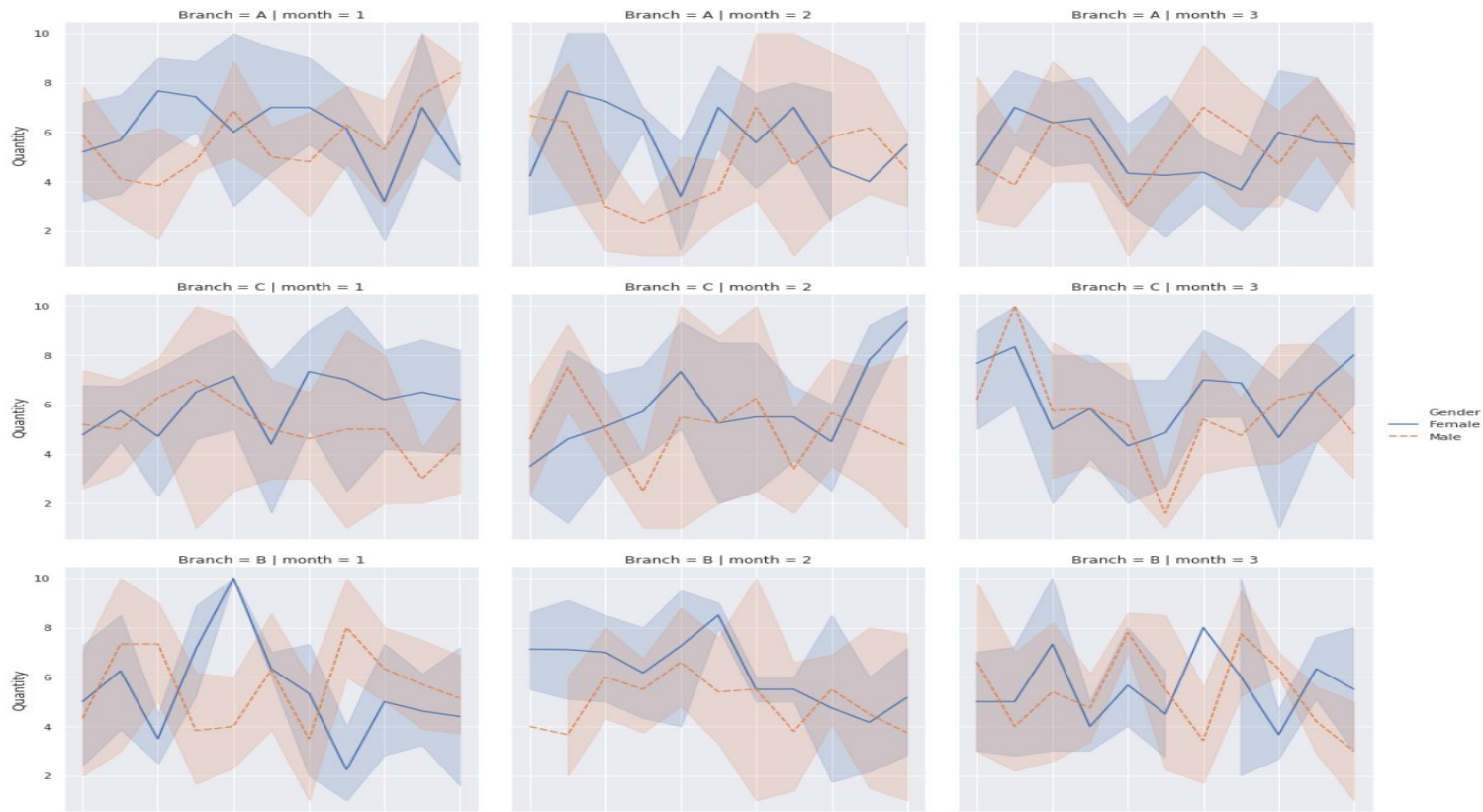
### Gender Count

Gender	
Female	501
Male	499

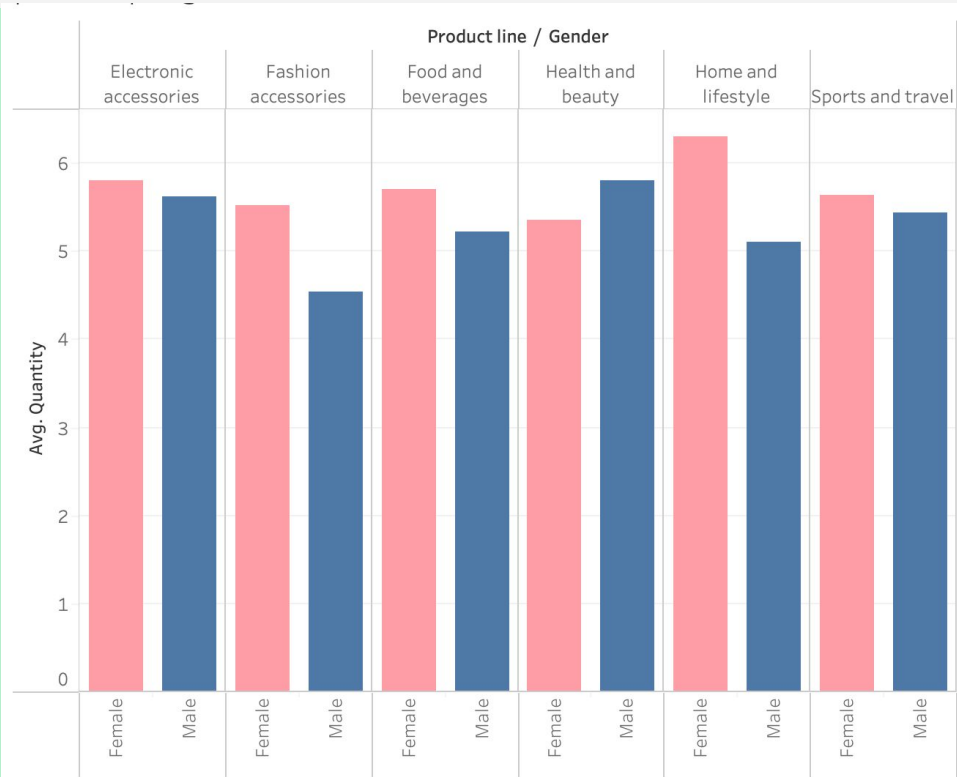
### Customer Type

Customer type	
Member	501
Normal	499

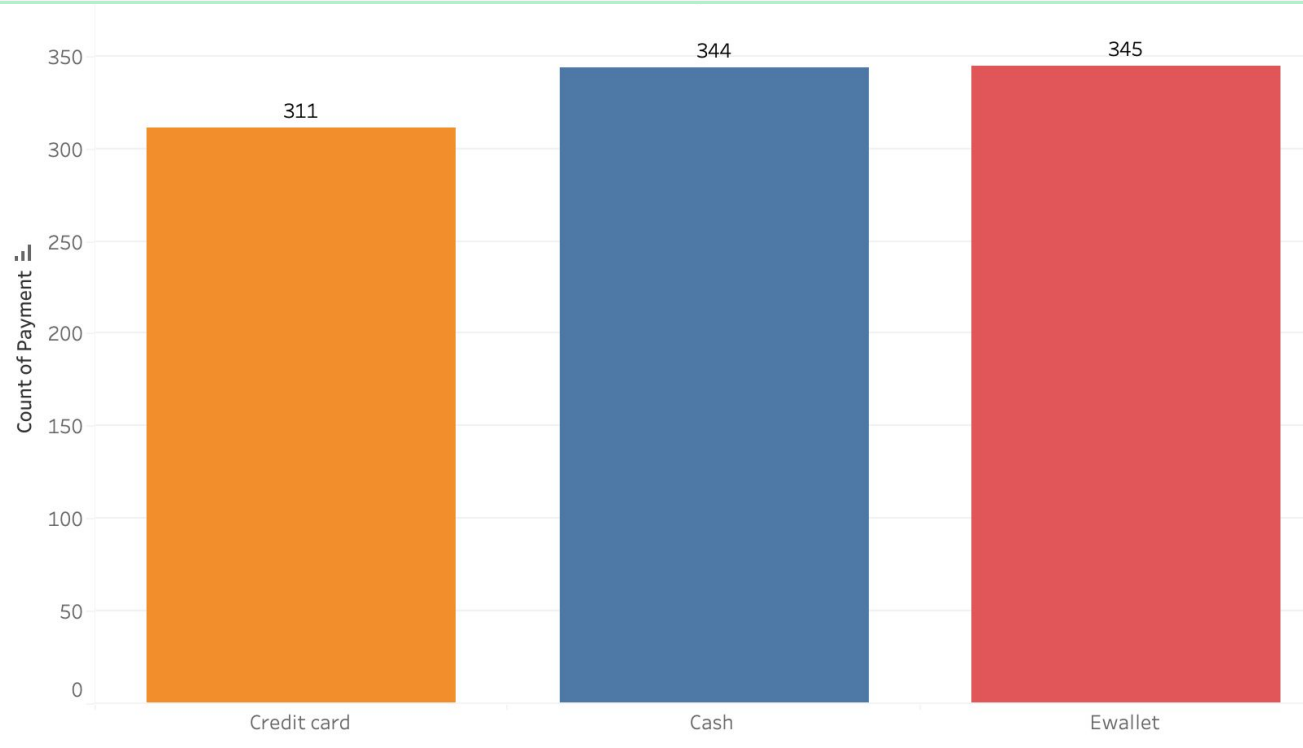
# Branch quantity by hour in monthly fashion



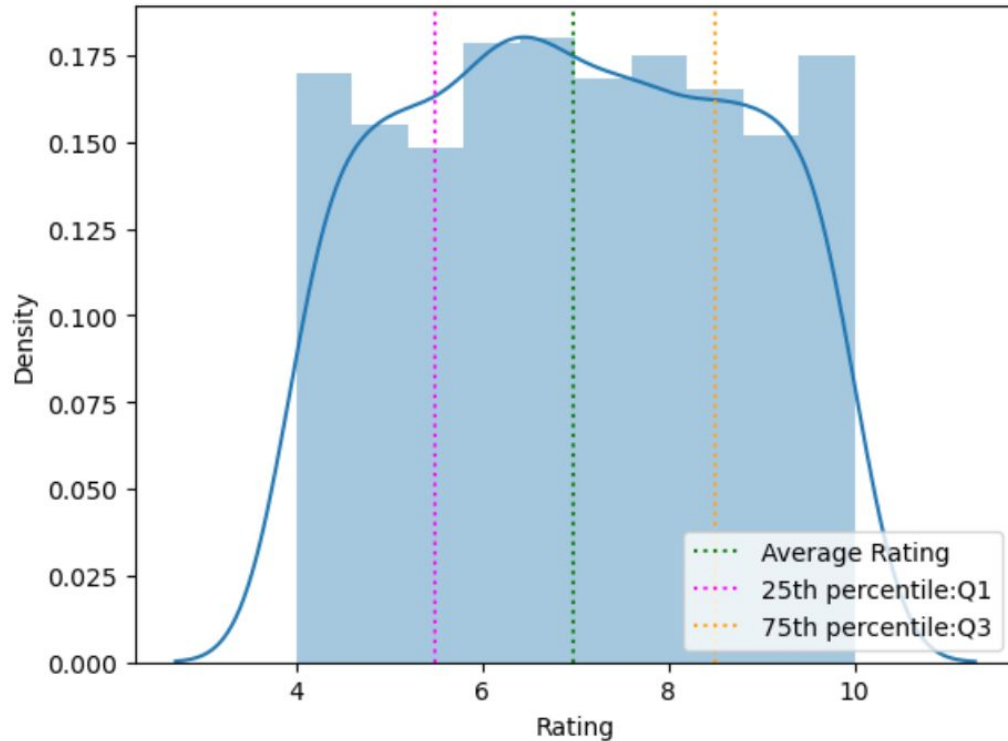
# Transactions per Gender



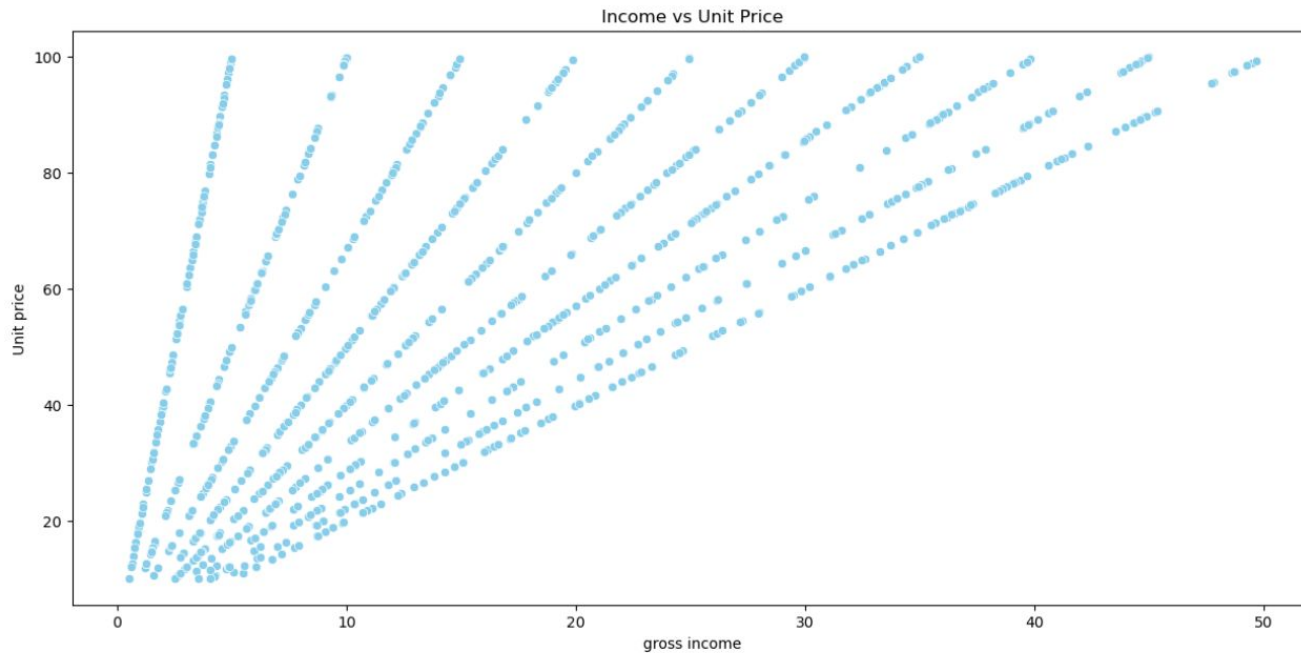
# Payment Method



# What does customer rating look like? Skewed?



# Income vs unit price





# Average Income from Products Purchased

