



# **SuperFoodsMax Revenue Analysis**

Amy Kamaruzaman

23 March 2024

Link to presentation:

[https://drive.google.com/file/d/179LKKMPrl0xnaEvVTUVtzlOSC9Yu5ZPq/view?usp=share\\_link](https://drive.google.com/file/d/179LKKMPrl0xnaEvVTUVtzlOSC9Yu5ZPq/view?usp=share_link)



**Part 1:**


**The issues at hand**



# 1. Stagnating revenue


- Stagnating revenue growth in the past years

# 2. High churn rate

- New customers do not convert to loyal customers
  - High number of promiscuous customers = wasted consistent revenue
- 



# The plan


- To increase revenue by 5% in 2 years
  - Focus: converting non-loyalists into loyalists
  - Insights that can support this
- 



# **Part 2:** **The data**



# The data

- Three tables used: customers, transactions, products
  - SQL: joined, select relevant period
  - Python: visualising trends
- 

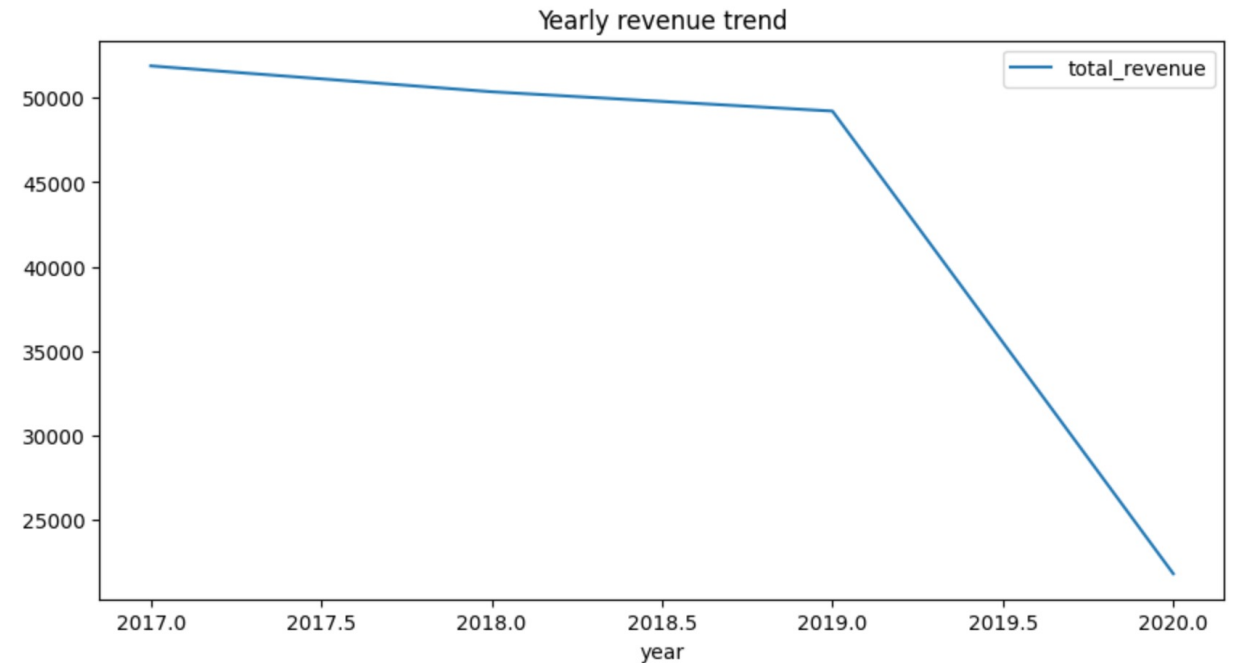


# **Part 3:**

# **The findings**

# 1. Revenue: yearly

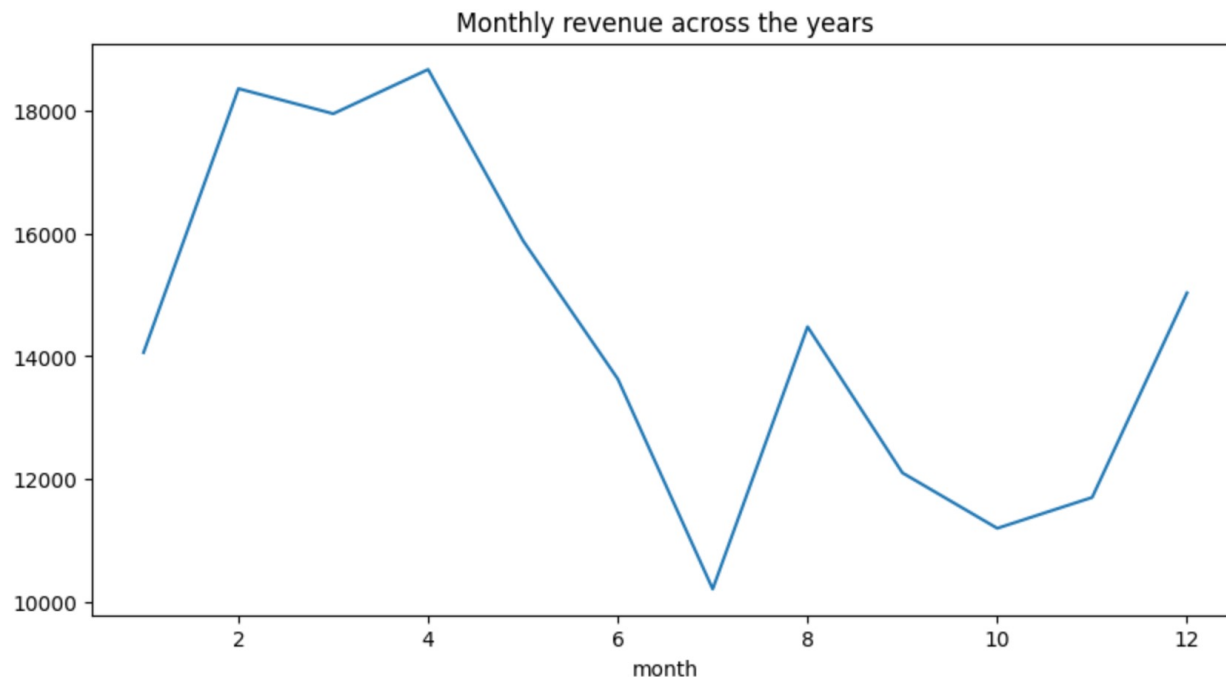
- Mathematical calculations used to discover revenue trends in the past years
- Revenue not only had been **stagnant** since 2017
- but in fact, **dropped** since early 2019





# Revenue: monthly

- Most revenue: April
- Least revenue: September
- No data to suggest if there was (lack of) any seasonal promotions

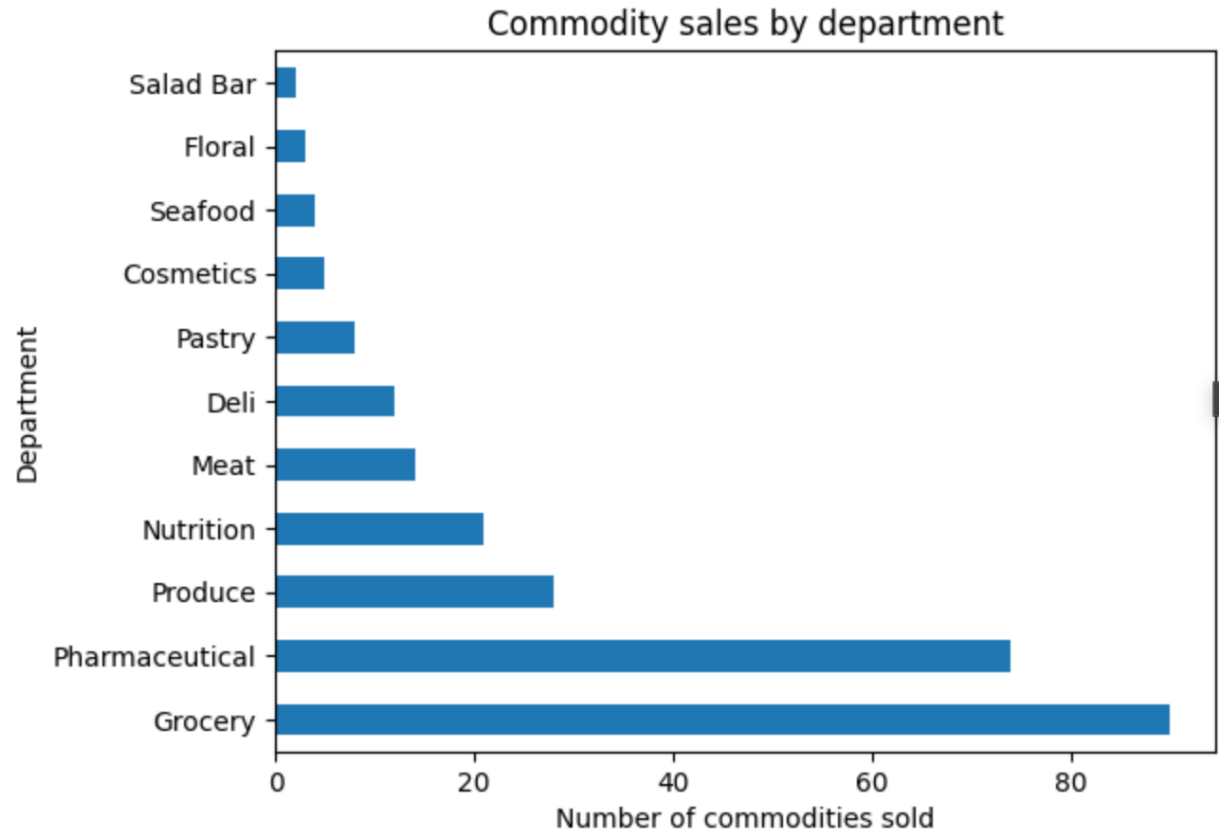


# What's the future looking like?

- Revenue forecast modelled using the following:
  1. Moving average
  2. Augmented Dickey-Fuller (ADF)
  3. ARIMA model
- Revenue is predicted to continue plateauing

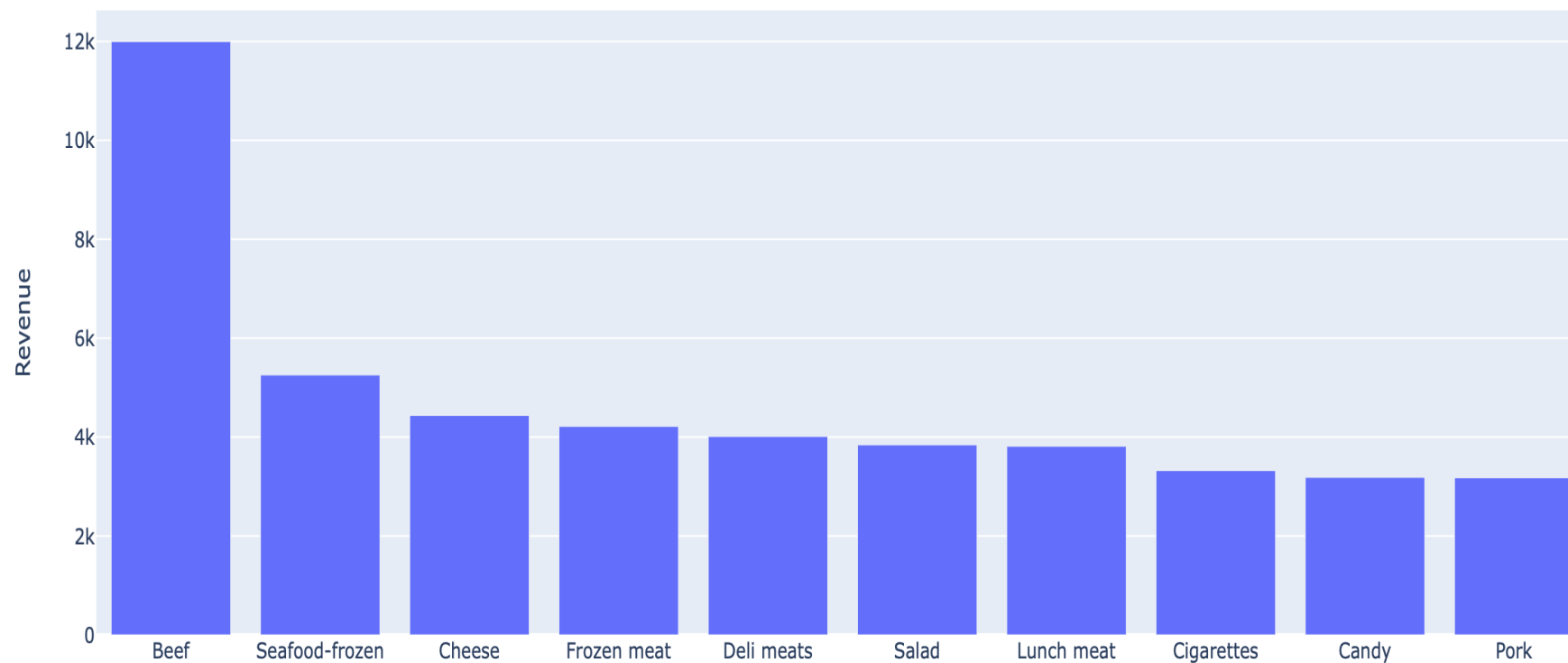
## 2. Top departments

- Top 3:
  - Grocery
  - Pharmaceutical
  - Produce
- Bottom 3:
  - Salad bar
  - Floral
  - Seafood

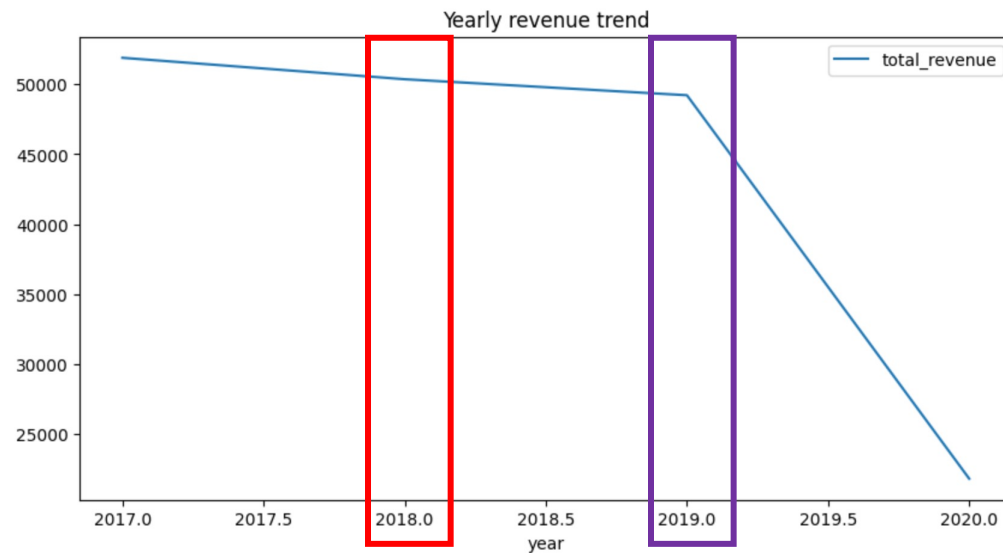
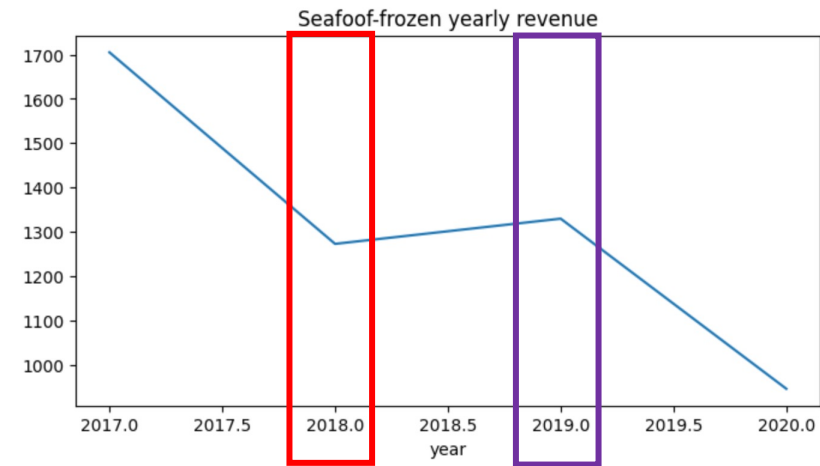
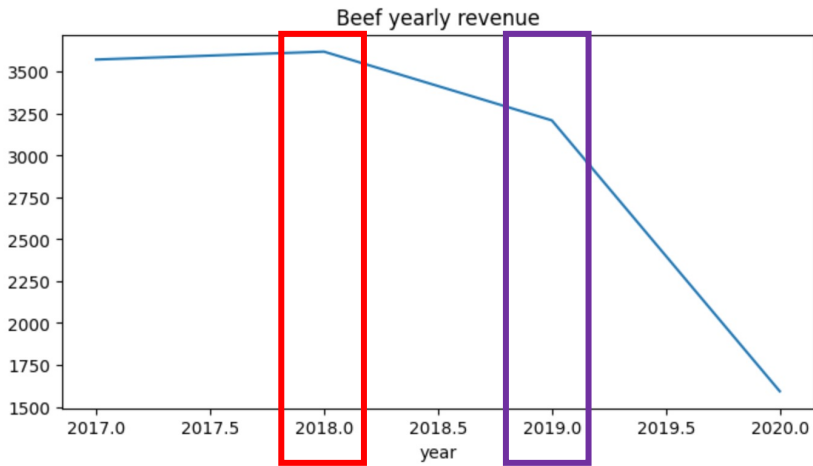


# Top 10 commodities

Top 10 commodities



# Top 2 vs. total revenue



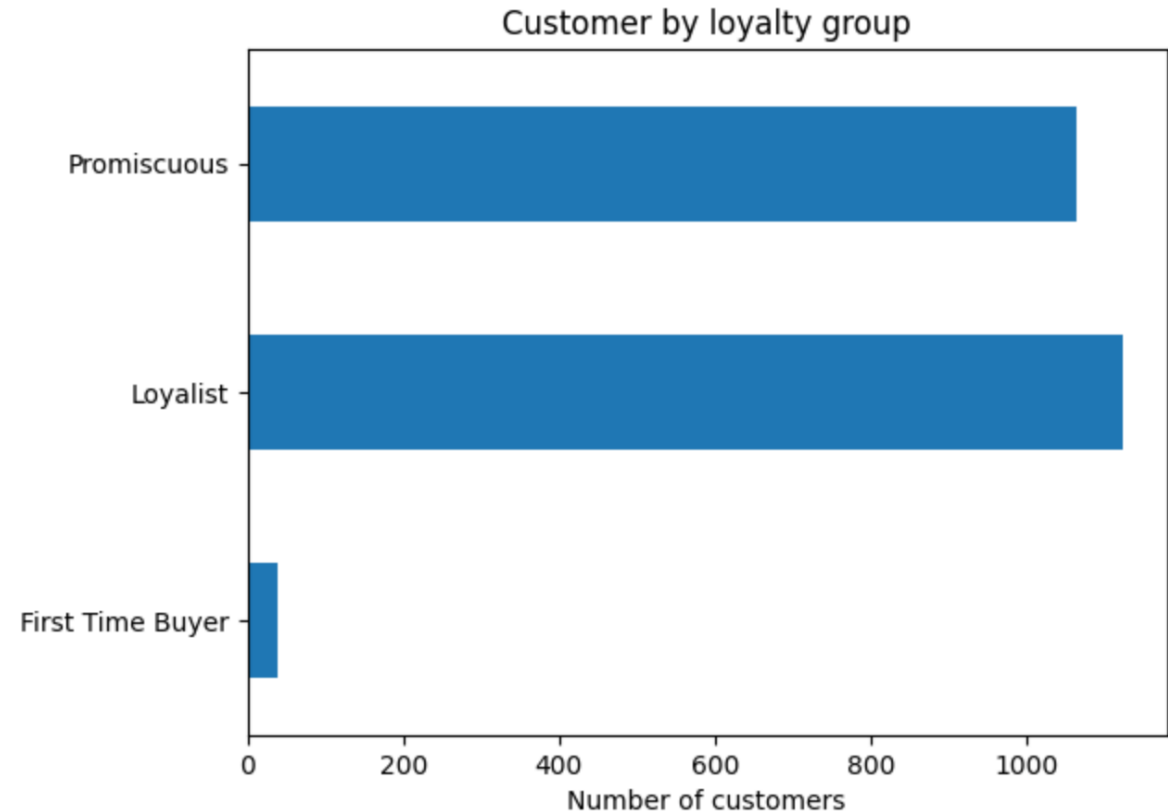
# Bottom 10 commodities

commodity	total_revenue
Bottle deposits	0.10
Deli supplies	5.67
Natural hbc	7.18
Continuities	9.98
Sewing	11.10
Overnight photofinishing	15.08
Canned milk	16.31
Frozen drinks	17.87
Fireworks	19.88
Liquor	23.36

- Least popular commodities seem like miscellaneous items
- Less than \$30 revenue

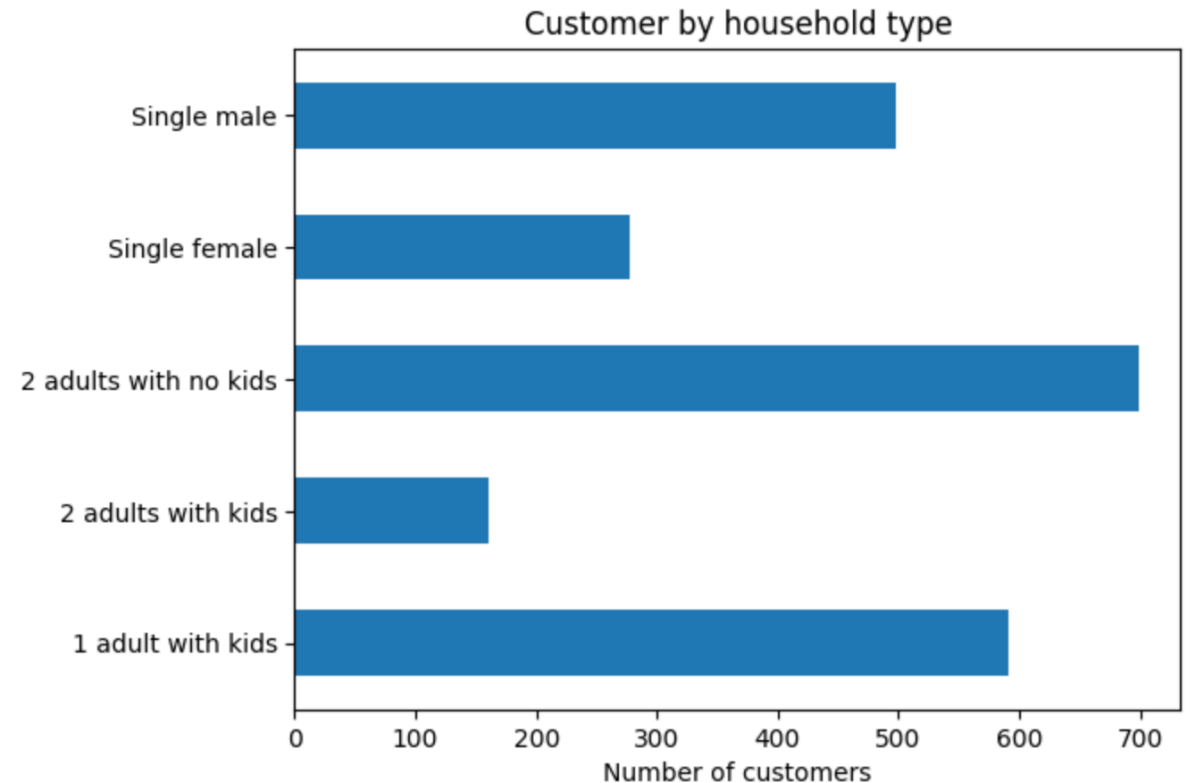
### 3. Demography: (i) loyalty

- Low number of first-timers
- Promiscuous shoppers almost as many as loyalists
  - Revenue leak



# Demography: (ii) household

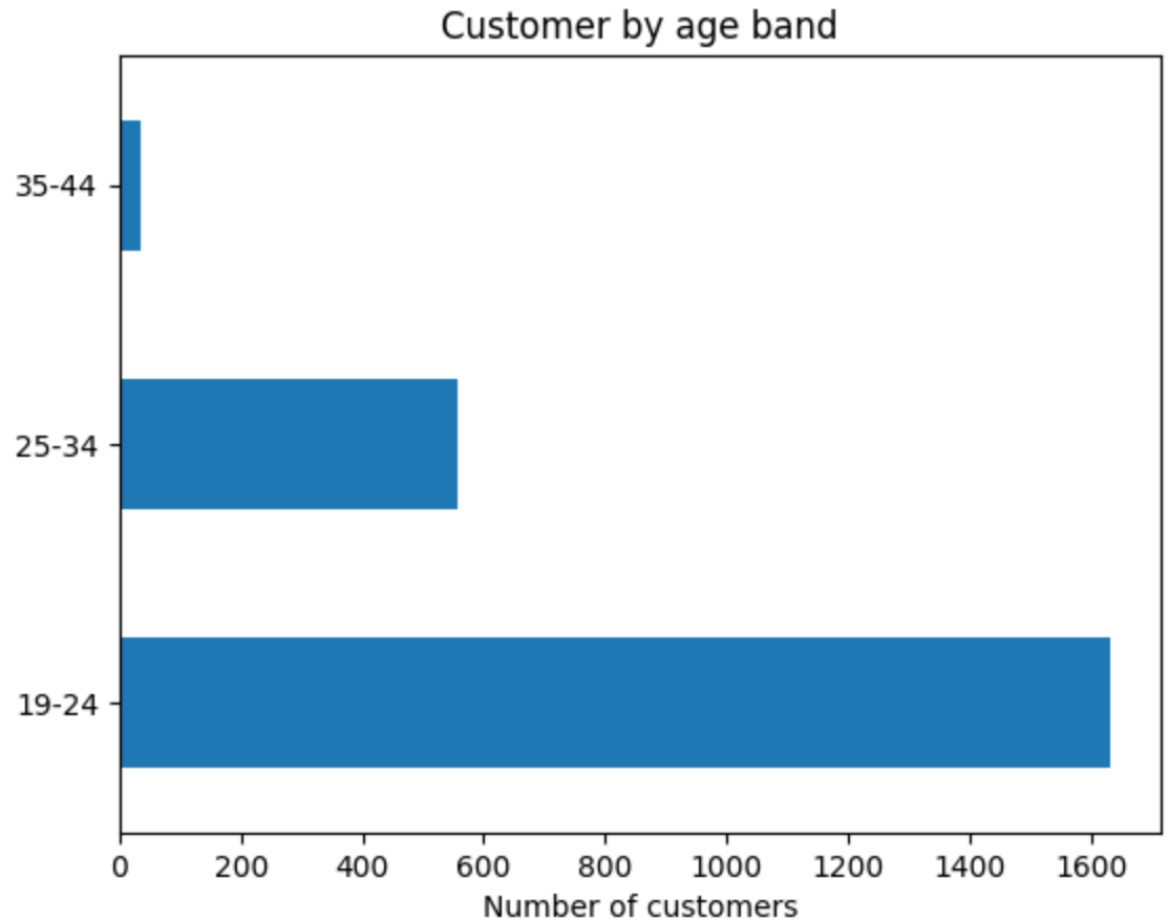
- No consistent pattern across groups of households may suggest:
  - Lack of child-friendly products/shopping experience
  - Wide range of products





# Demography: (iii) age

- Main customers: 19-24
- Least popular amongst the elderlies
  - Accessibility
  - Shopping experience
  - Range of products



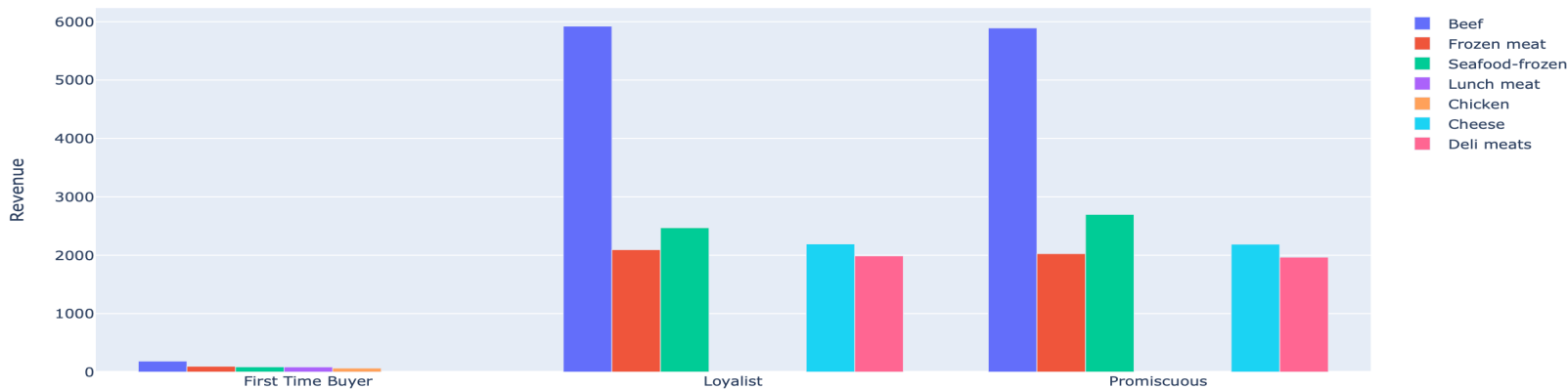
loyalty	average	median	total	num_baskets
Loyalist	72.638461	70.360	86367.13	1189
Promiscuous	72.524534	70.535	83983.41	1158
First Time Buyer	69.759762	73.380	2929.91	42

age_band	average	median	total	num_baskets
19-24	73.587761	71.420	129514.46	1760
25-34	69.771551	68.730	41374.53	593
35-44	66.429444	57.135	2391.46	36

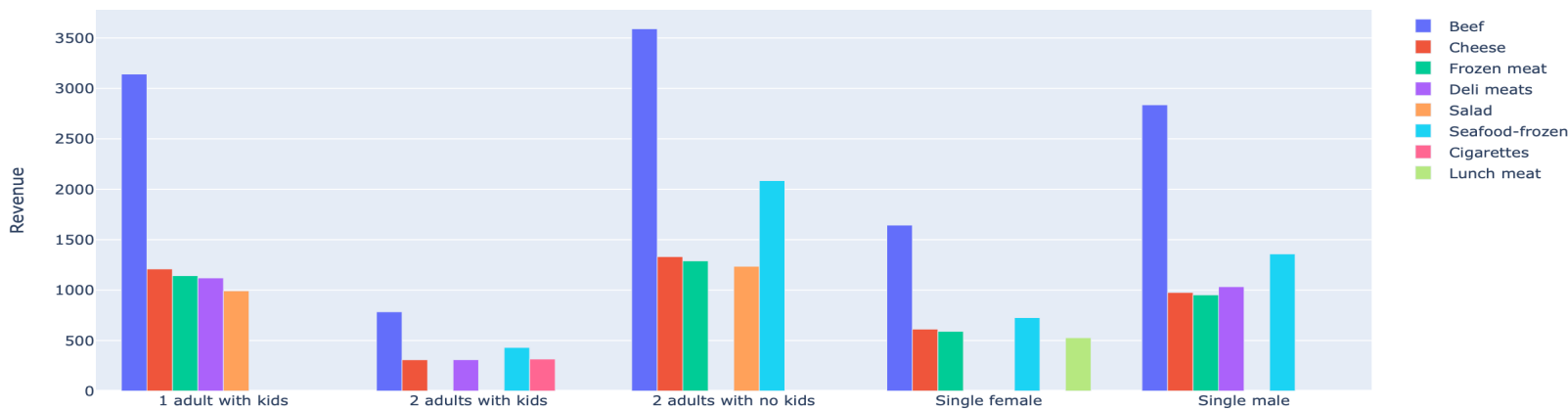
household_type	average	median	total	num_baskets
Single female	73.857888	72.550	22378.94	303
Single male	73.174323	70.860	39440.96	539
2 adults with no kids	72.508360	70.995	54816.32	756
1 adult with kids	72.095474	69.640	44915.48	623
2 adults with kids	69.813988	69.075	11728.75	168

- Average spending almost similar
- Every customer has similar revenue potential

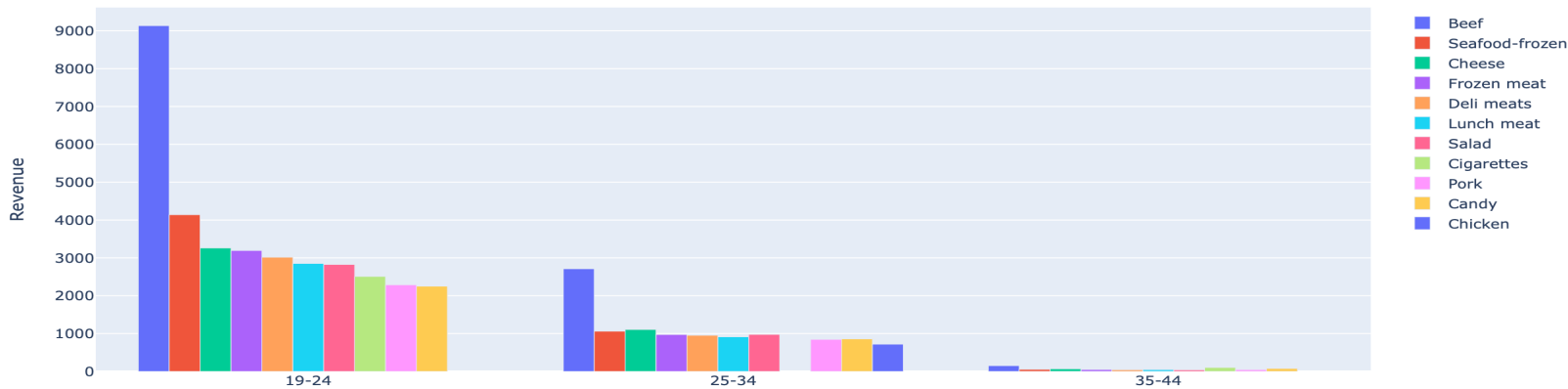
Top commodities per loyalty group



Top commodities per household



Top commodities per age bracket






# **Part 4:**

# **Moving forward**



# **Aim: Increase revenue by 5% in 2 years**

- Are they right in wanting to focus on gaining more loyalists?
    - Customers regardless of loyalty, age or household type spend almost similar average amount per shopping
    - Promiscuous customers are high spenders & have similar shopping preference to that of loyalists
    - More promiscuous turn to loyalists → more purchases
    - More purchases → more revenue
- 



**Part 5:**

# **Recommendations**

# Identify target

1. Younger customers: Improve online shopping experience
  - Develop an app
  - Collaborate with readily-existing services (e.g.: Uber, Doordash)
2. Household variety: Make SuperFoodsmax more appealing
  - Drive through pick-up
  - Develop loyalty programme with interesting perks
  - Collaborate with other services (e.g.: buy x from our pet range and get discount at vet A)