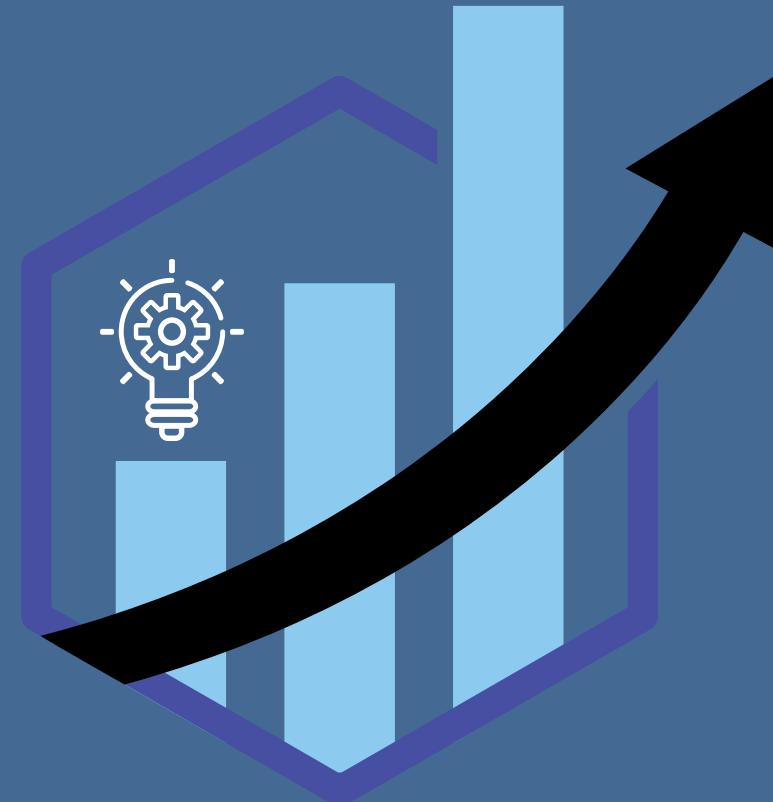


Team 13

The OptiMizers

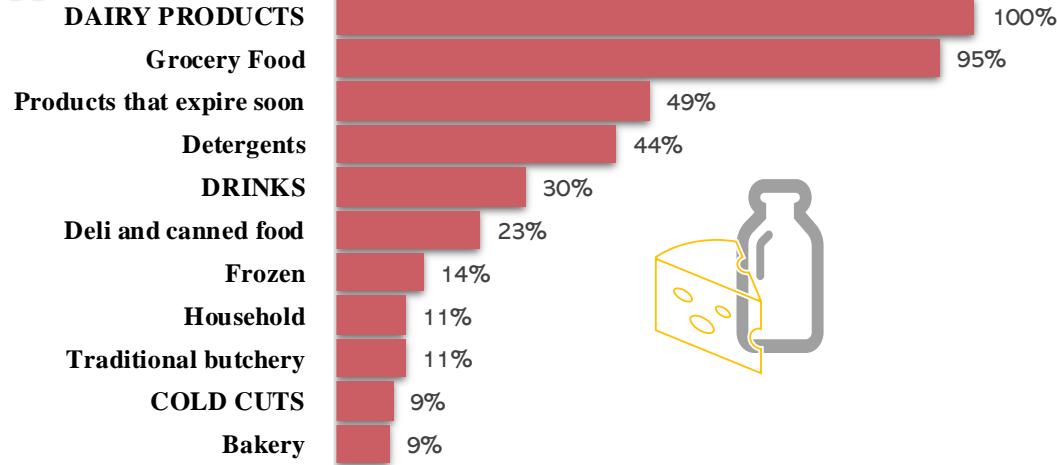
Student ID	Student Name
24234715	Ganesh Perumal Subramaniam Yadava
24239037	Anand Pazhangaparambh Madambath
24239955	Varsha Ashwathappa Srilalitha
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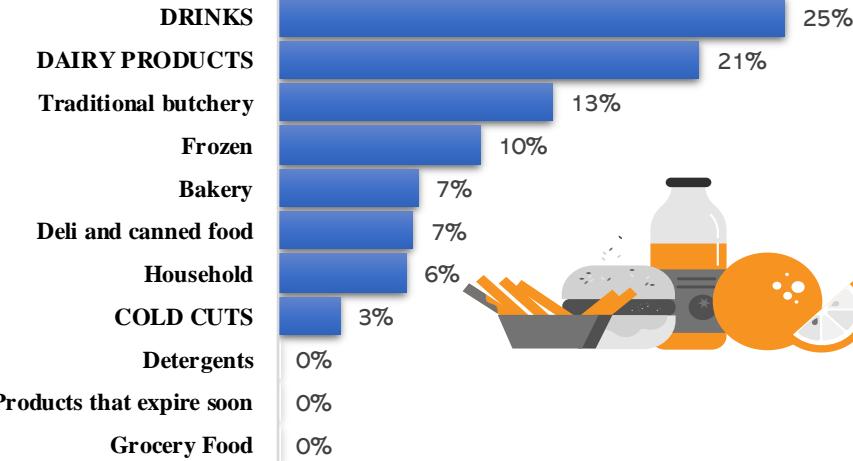


Basket Segmentation

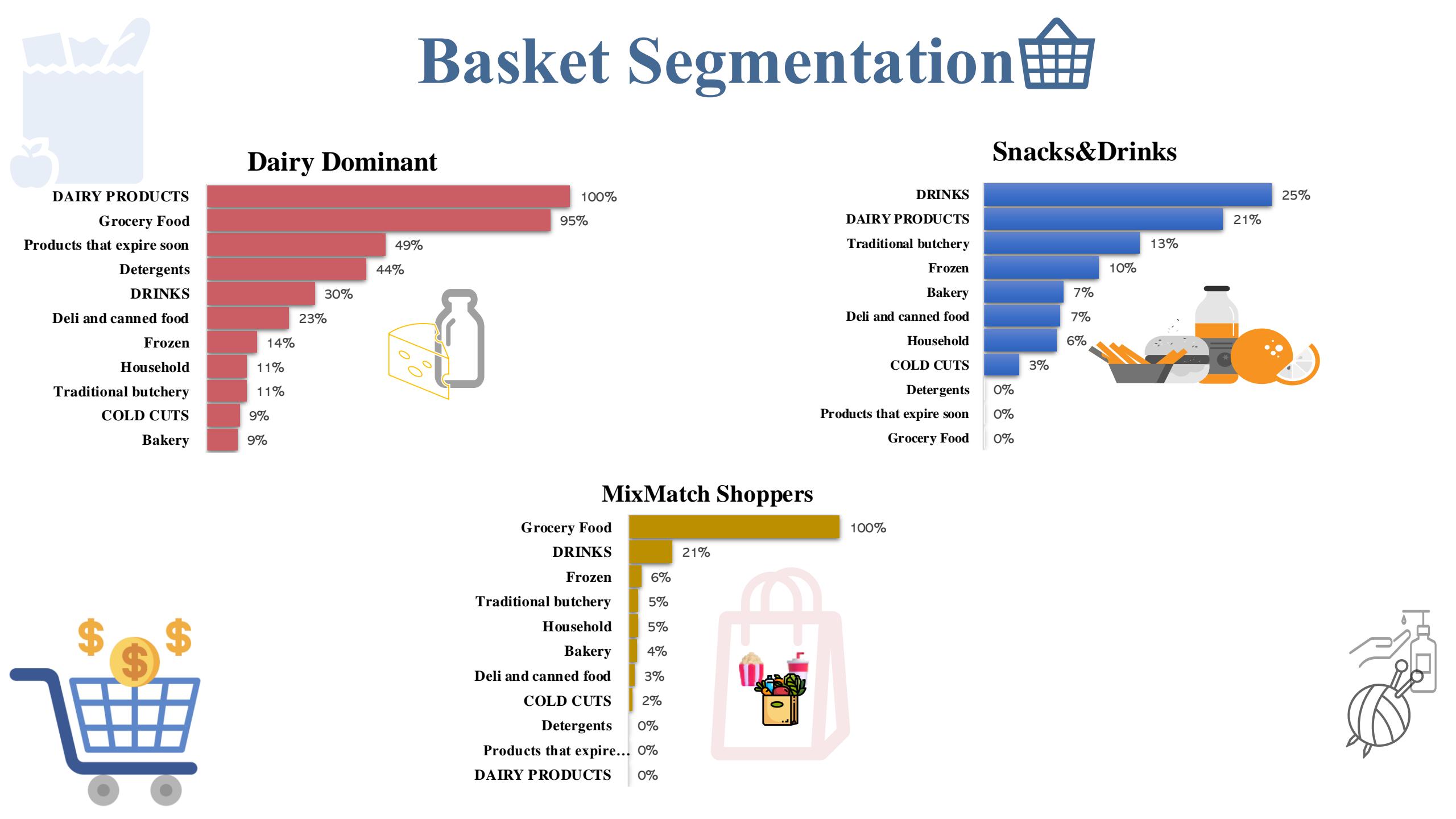
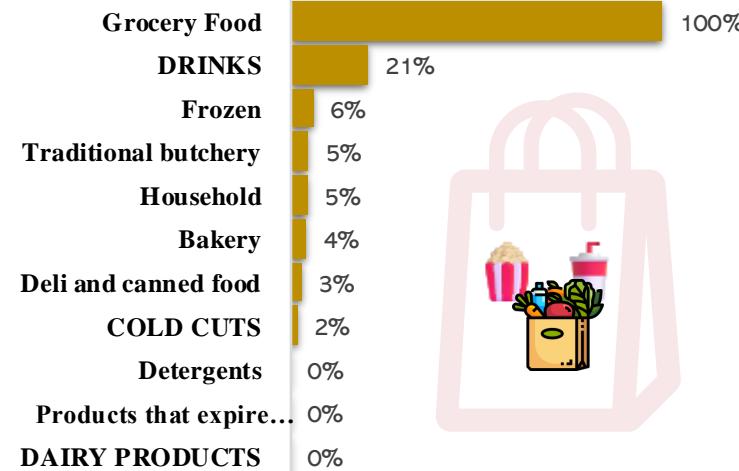
Dairy Dominant



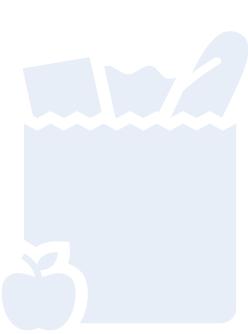
Snacks&Drinks



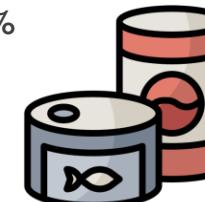
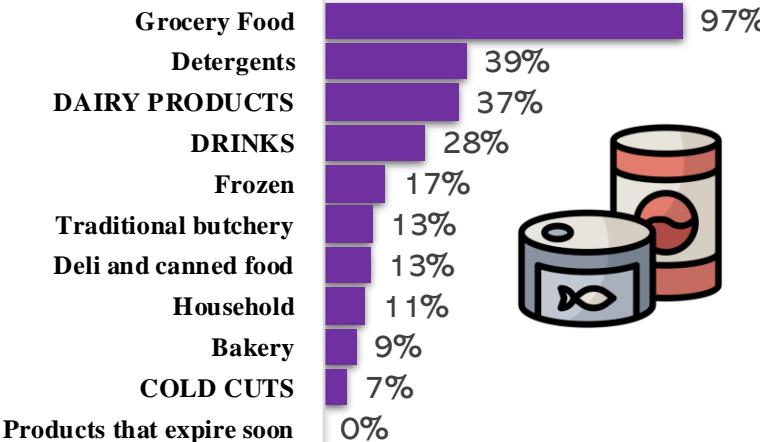
MixMatch Shoppers



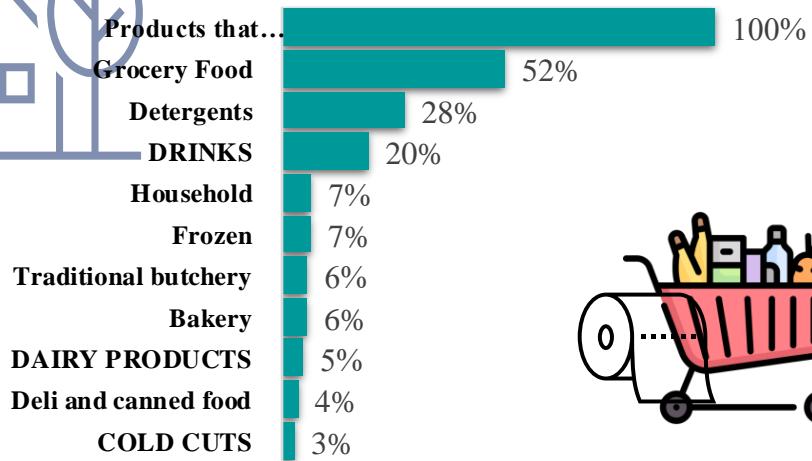
Participation of Product Category in a Basket



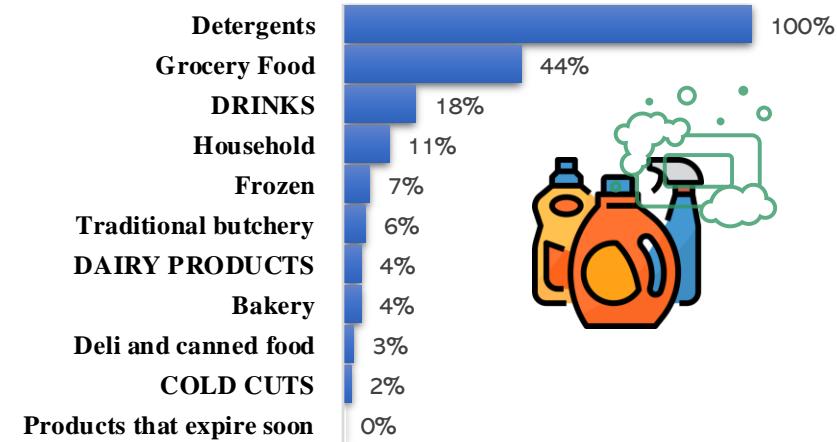
Grocery Shoppers

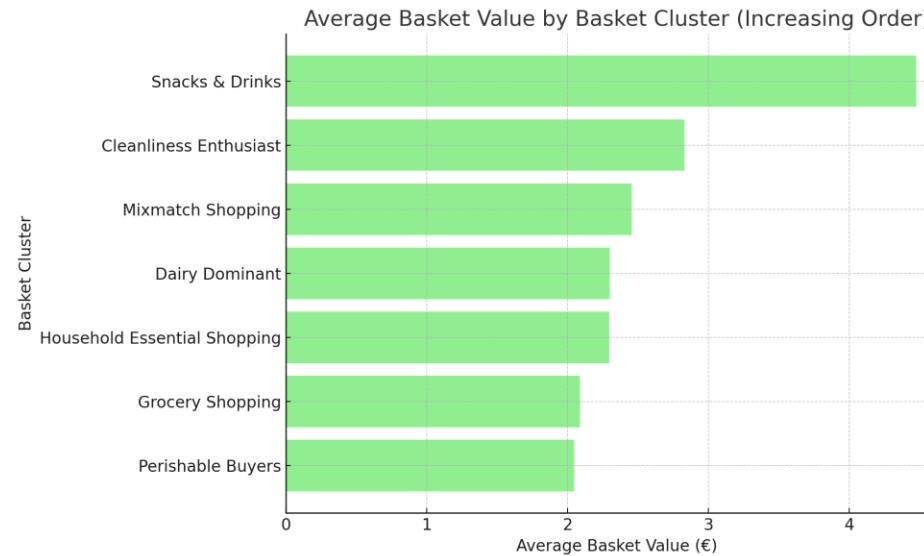
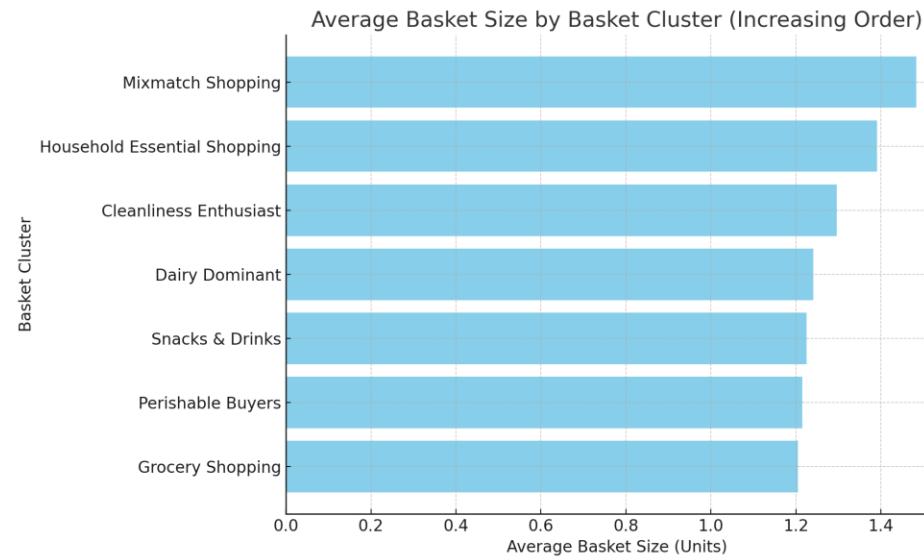


Household Essential Shopper



Cleanliness Enthusiasts





Basket Size:

- 🛒 **Mismatch Shopping:** This cluster has the **largest average basket size** 🛍️, indicating diverse product purchases like groceries, household items, and more.
- 🛒 **Grocery Shopping:** This cluster has the **smallest basket size** 🛑, focusing on essentials like fruits, vegetables, and basic groceries.



Basket Value:

- 🥤 🥤 **Snacks & Drinks:** This cluster shows the **highest average basket value** 💰, reflecting higher spending on indulgent or premium items.
- 🥛 🟧 **Perishable Buyers and Grocery Shopping:** These clusters have **lower basket values** 💰, as they focus on cost-effective, essential items like bread, milk, and groceries.



Participation of Product Category in a Basket



Perishable Buyers

PRODUCTS EXPIRES SOON

100%

GROCERY FOODS

73%

Majority of buyer from age 35 and 48

DAIRY PRODUCTS

45%

Approximate Purchase count 25,000

DETERGENTS

39%



Morning hours

DRINKS

30%

FROZEN ITEMS

16%

Most purchase on weekends.

DELI & CANNED FOOD

15%



Tuesdays and Thursday also noticed significant purchases

TRADITIONAL BUTCHERY

12%

HOUSEHOLD

11%

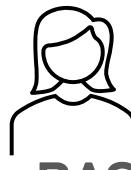
BAKERY

9%

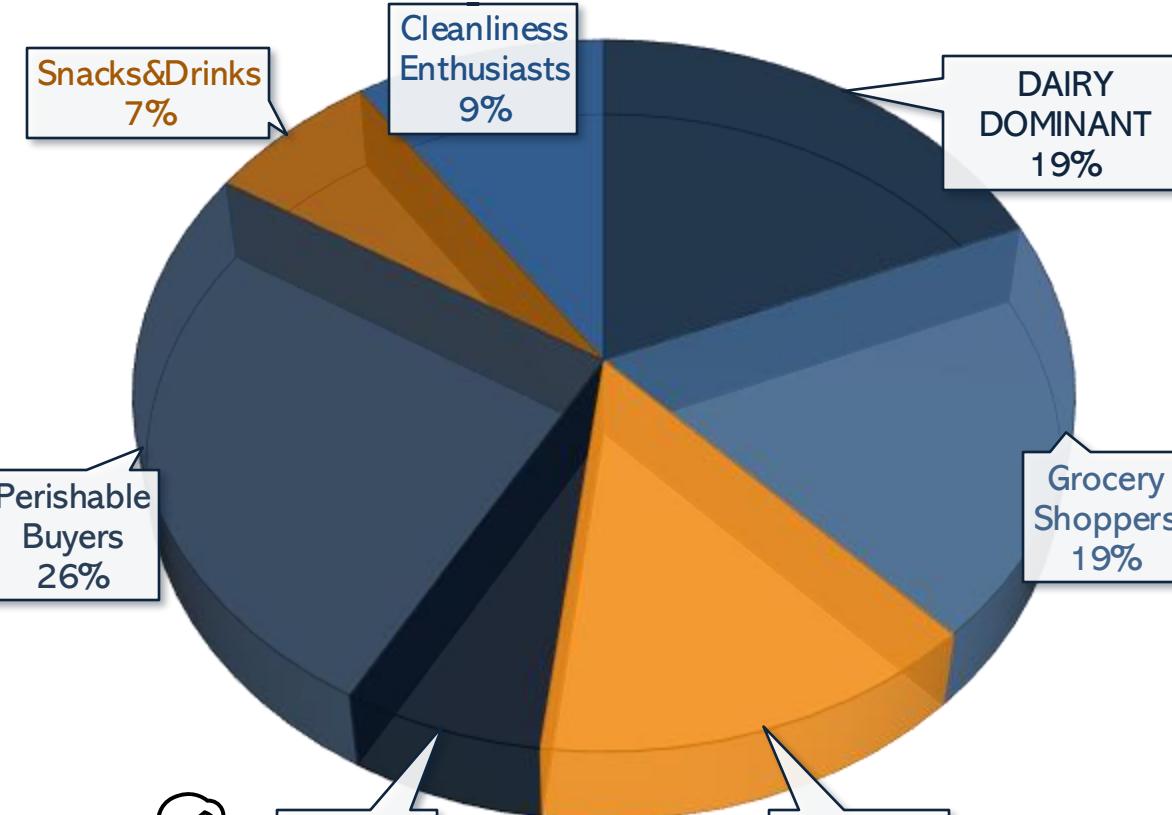
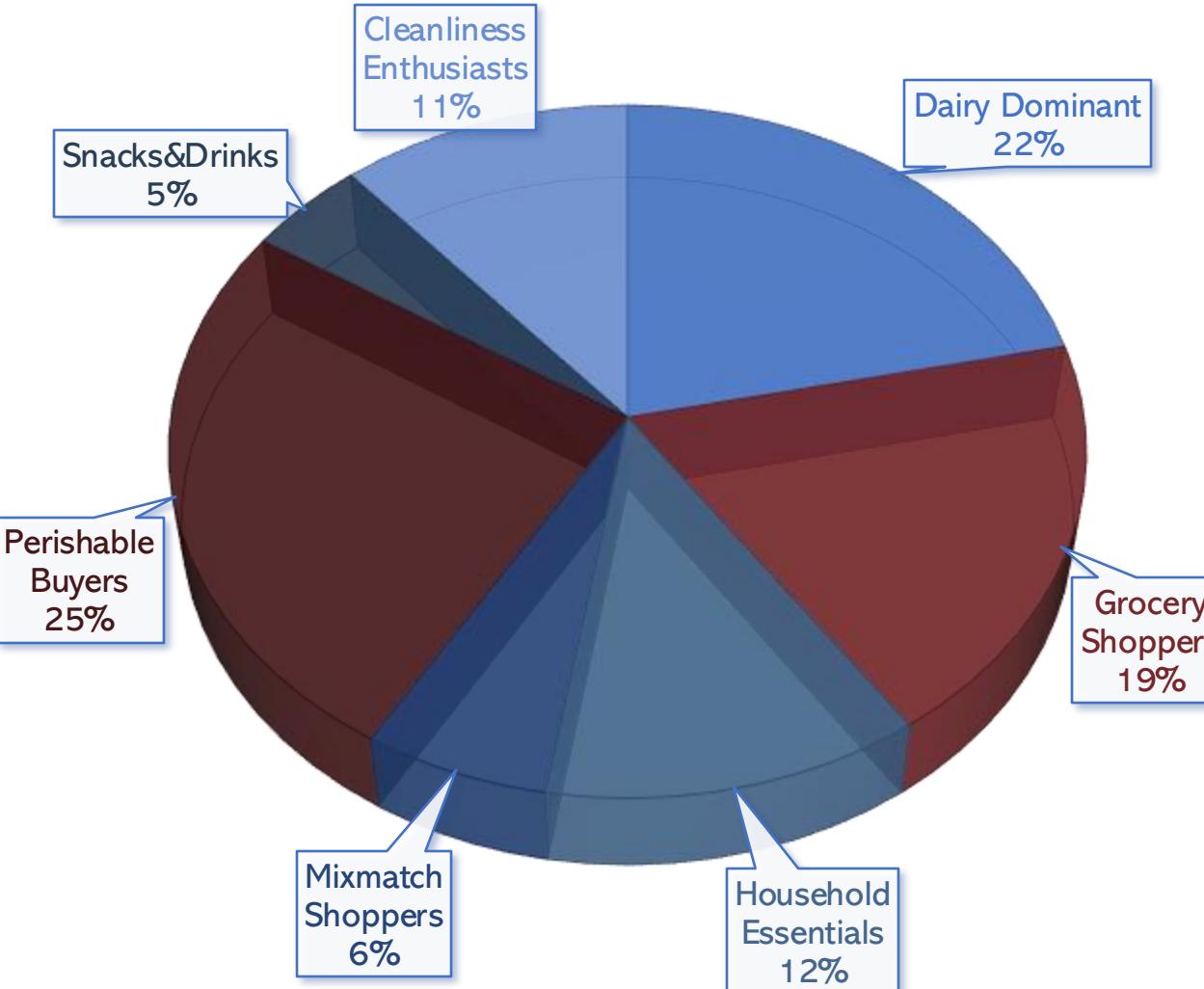
COLD CUTS

8%





BASKET SEGMENTATION FOR FEMALES



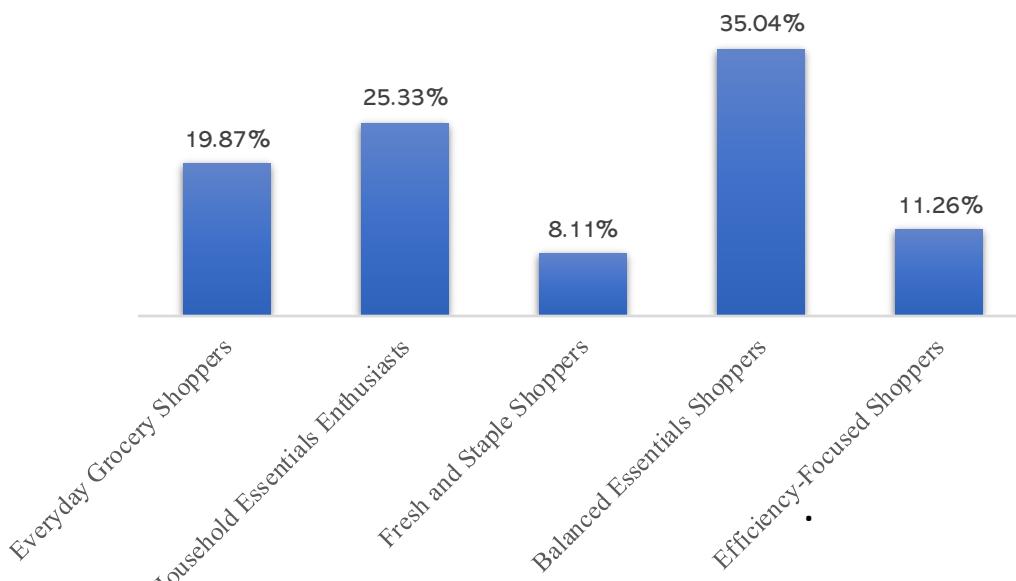
BASKET SEGMENTATION FOR MALES



Customer Segmentation

TOP 10 ATTRIBUTES ACROSS ALL CATEGORIES

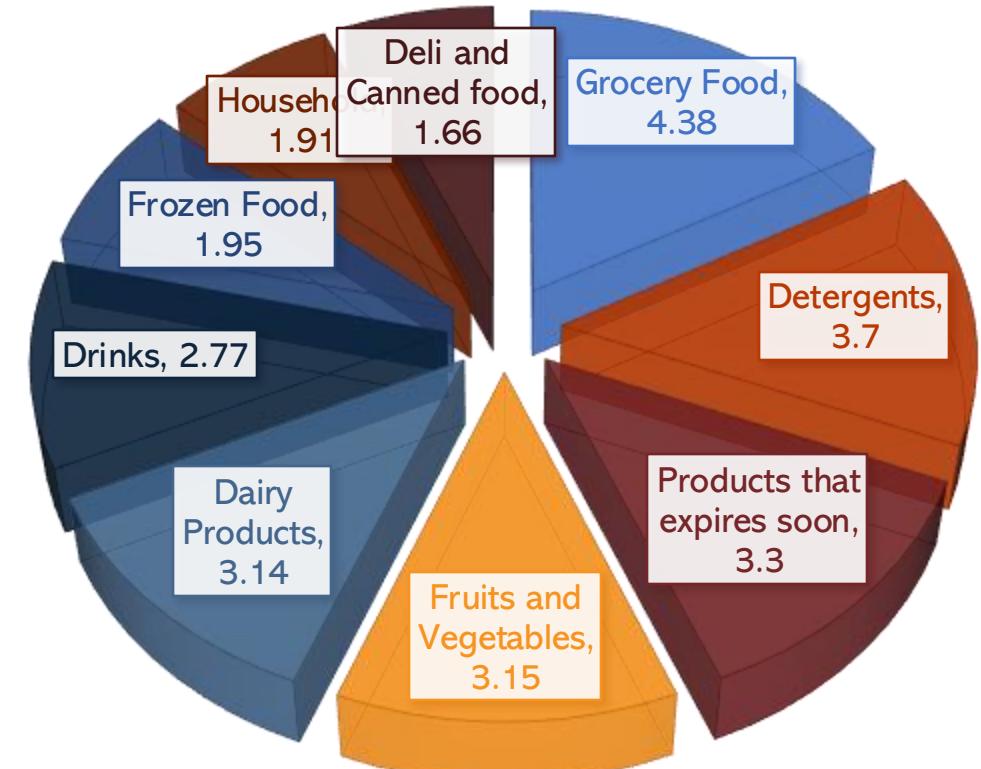
Average Affinity Scores by Customer Group



'Balanced Essentials Shoppers' – Highest Affinity score (35.04%)



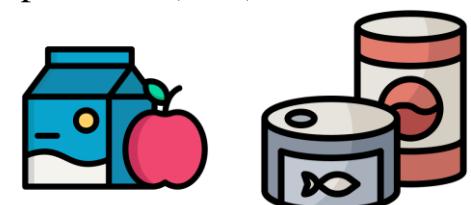
"Fresh and Staple Shoppers" – Lowest affinity (8.11%)



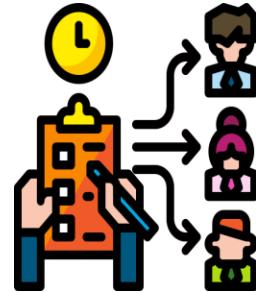
Grocery Food 🛒: Top attribute (4.38) – a must-have!

Fresh Favorites 🥗🧀: Fruits, Vegetables (3.15) & Dairy (3.14) shine.

Canned Goods 🐔: Least preferred (1.66).



Attribute	Everyday Grocery Shoppers	Household Essentials Enthusiasts	Fresh and Staple Shoppers	Balanced Essentials Shoppers	Efficiency-Focused Shoppers
Grocery Food	97.58%	98.31%	64.85%	99.75%	77.15%
Dairy Products	94.37%	85.25%	26.87%	97.49%	10.09%
Products that expires soon	81.28%	84.55%	34.44%	93.59%	35.73%
Detergents	79.05%	93.12%	0.00%	97.74%	100.00%
Fruits and Vegetables	77.01%	82.72%	32.42%	94.10%	29.23%
Household	0.00%	100.00%	8.38%	61.31%	21.58%
Baby Clothing	0.10%	0.42%	0.00%	1.13%	0.00%
Man Clothing	0.00%	0.14%	0.10%	0.38%	0.12%
Gifts	0.39%	0.84%	0.10%	0.75%	0.35%
TV - HIFI - Sound	0.00%	0.14%	0.10%	0.13%	0.00%

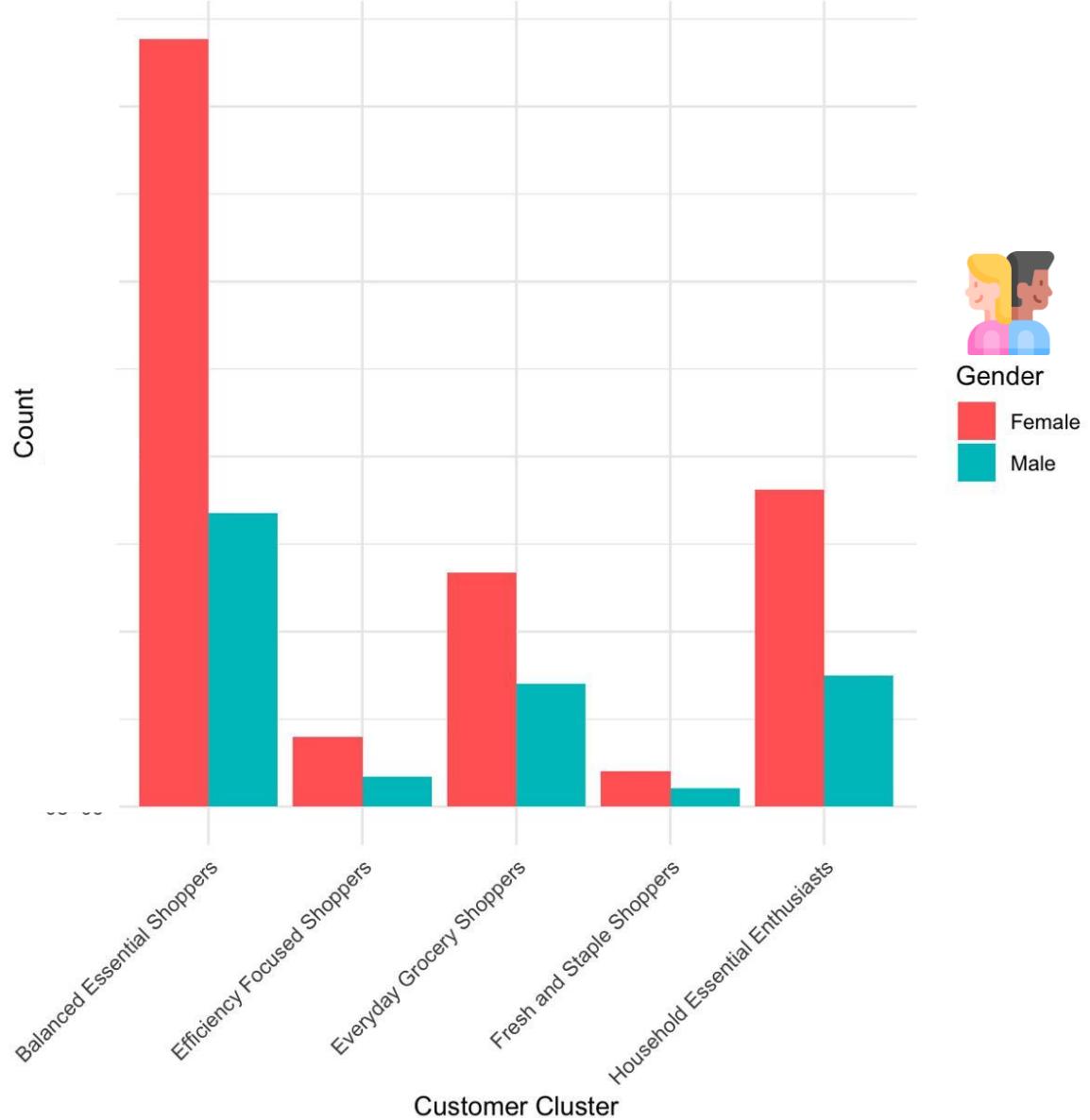


Patterns and Observations Based on the top 5 and bottom 5 attributes -

- 🛒 **Everyday Grocery Shoppers & ⚖️ Balanced Essentials Shoppers:**
High preference for 🍜 Grocery Food, 🧀 Dairy Products, and 🧼 Detergents.
- 💡 **Fresh & Staple Shoppers:**
Avoid 🧼 Detergents (0%) and focus on fresh items like 🍎 Fruits and Vegetables.
- ⚡ **Efficiency-Focused Shoppers:**
Prioritize 🧼 Detergents (100%) but ignore most other categories.
- 🔑 **Key Items:**
🛒 Grocery Food, 🧀 Dairy, and 🧼 Detergents are popular across all groups.
- 🚫 **Low-Interest Items:**
😢 Baby Clothing, 📺 TVs, and 🤵 Men's Clothing score low everywhere.

Insights	Actions
🛒 Stock Smart	Prioritize high-demand items like 🍜 Grocery Food, 🧀 Dairy, and 🧼 Detergents.
🎯 Target Groups	Promote 💡 fresh items to Fresh & Staple Shoppers and ⚡ Detergents to Efficiency Shoppers.
📊 Maximize Space	Allocate shelf space to favorites; reduce space for 😢 Baby Clothing and 📺 TVs.
💡 Personalized Offers	Design loyalty programs and special deals based on shopper preferences.
🏆 Stay Ahead	Use insights to improve satisfaction and stay ahead of the competition.

Gender Distribution by Customer Cluster



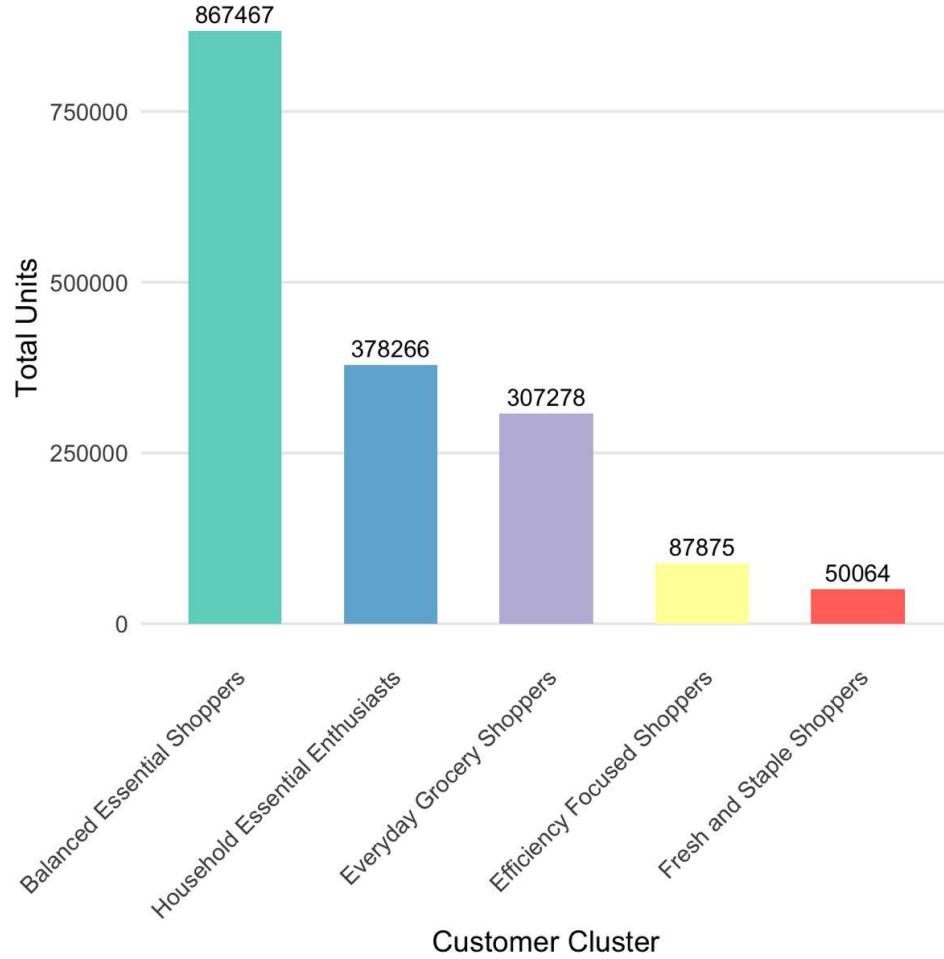
Gender

Female
Male

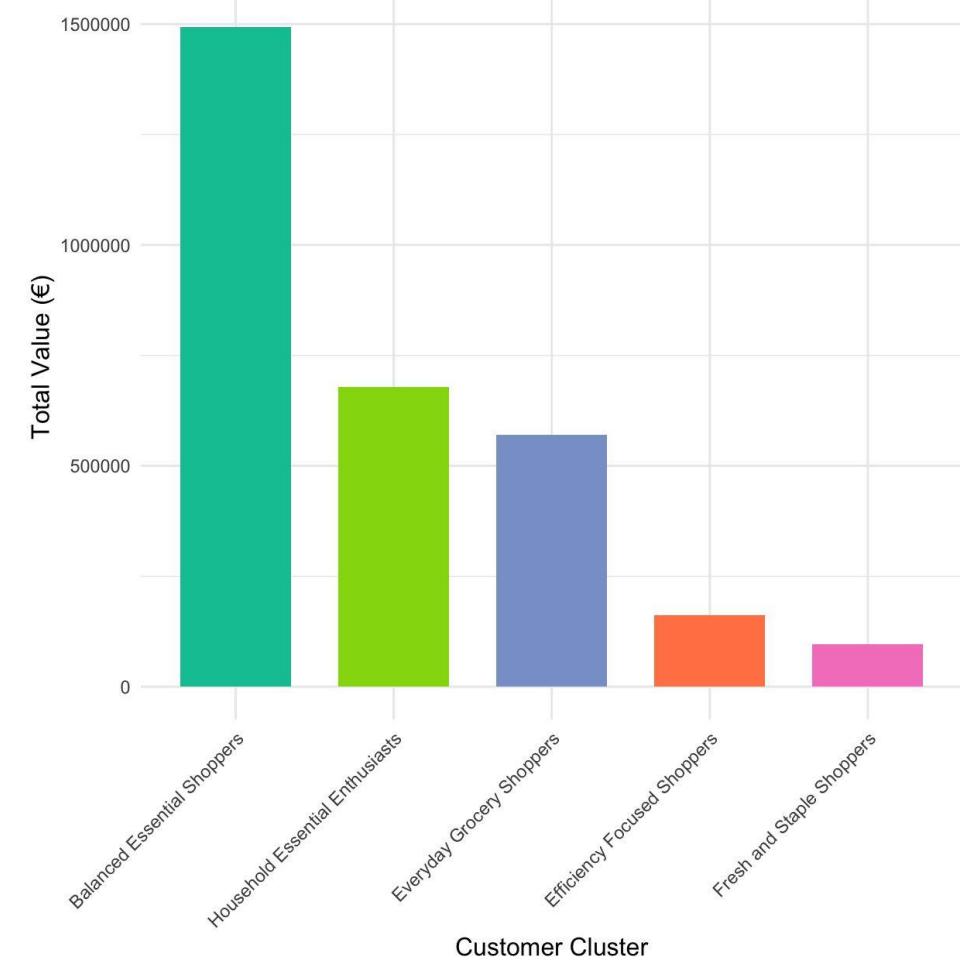
1. **Balanced Essential Shoppers** 🛒😊
 - ↗ Largest Cluster
 - ↗ Female Majority
2. **Efficiency Focused Shoppers** 🏃‍♂️😊
 - ↘ Smallest Group
 - ↘ Male-Dominated
3. **Everyday Grocery Shoppers** 🥕🍞
 - ↔ Mid-Sized
 - ↔ Mixed Gender
4. **Fresh and Single Shoppers** 🥗😊
 - ↘ Fewest Shoppers
 - ↘ Mostly Female
5. **Household Essential Enthusiasts** 🏠🏡
 - ↗ Second Largest
 - ↗ Female Majority



Total Units Purchased by Customer Cluster



Total Value Sum by Customer Cluster



Thank you!

