

# Retail Consumer Insights



**Team 0 error 0 warning**

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## Team 0 error 0 warning

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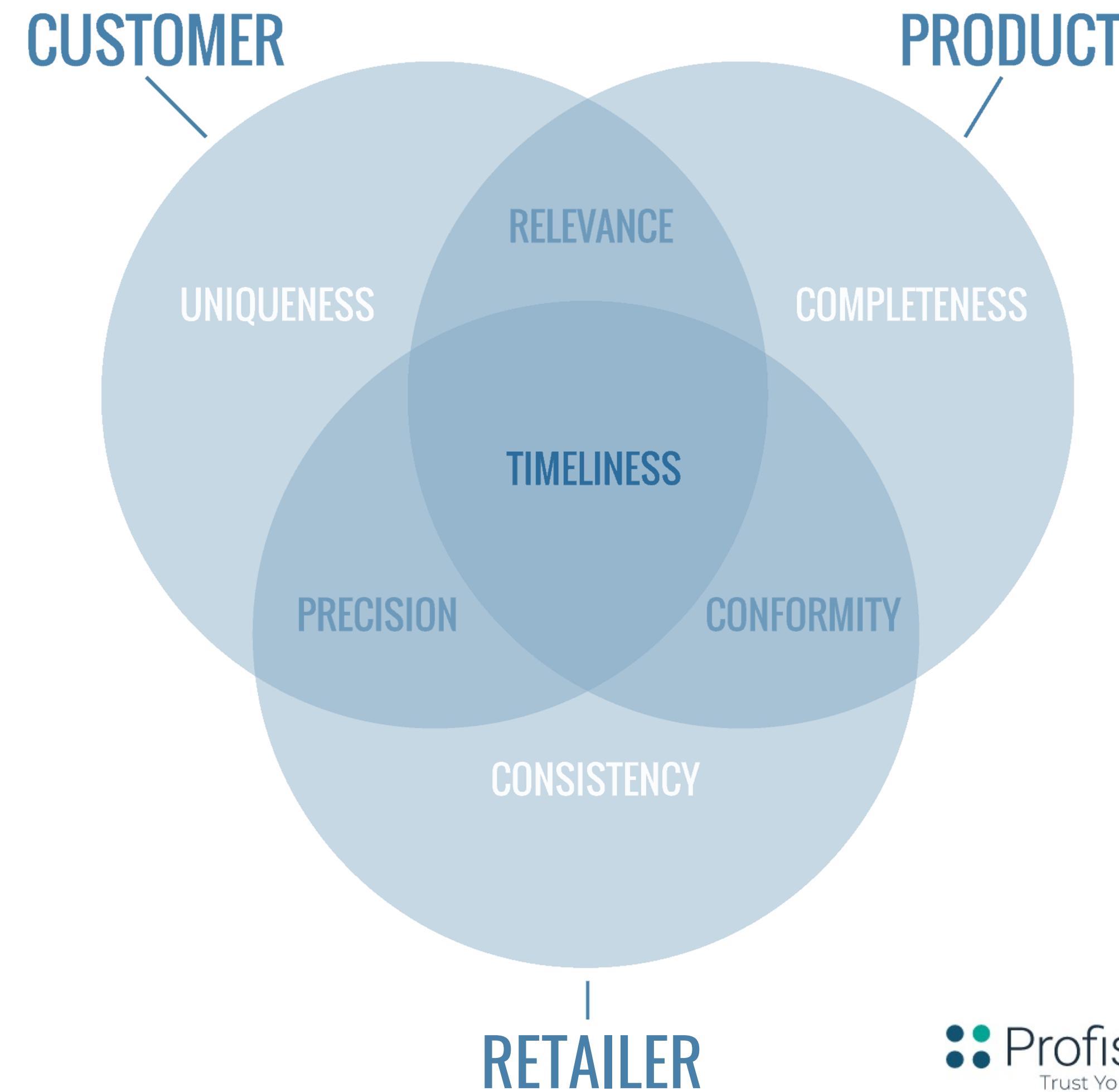
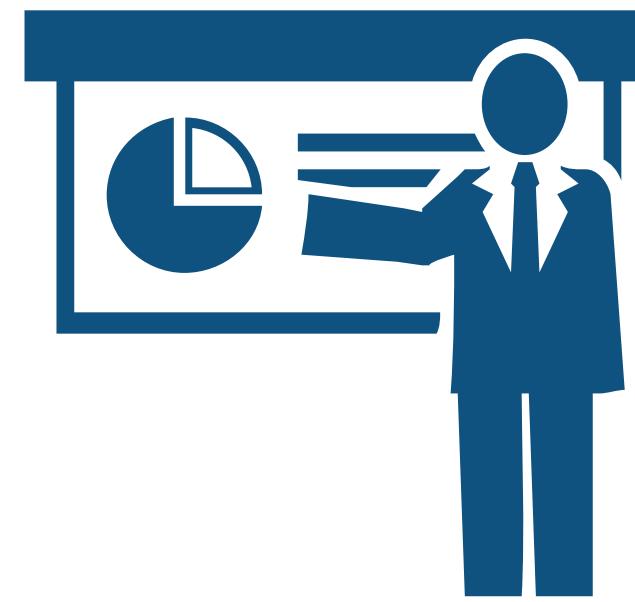
# Data Source



We collected our data from **Kaggle**.

The original dataset contains **more than 2 million** household-level **transactions** over two years from a group of 2,500 households who are frequent shoppers at a retailer. It includes all of each household's purchases and the demographic information for **801 households** who completed the survey.

# | Data Quality

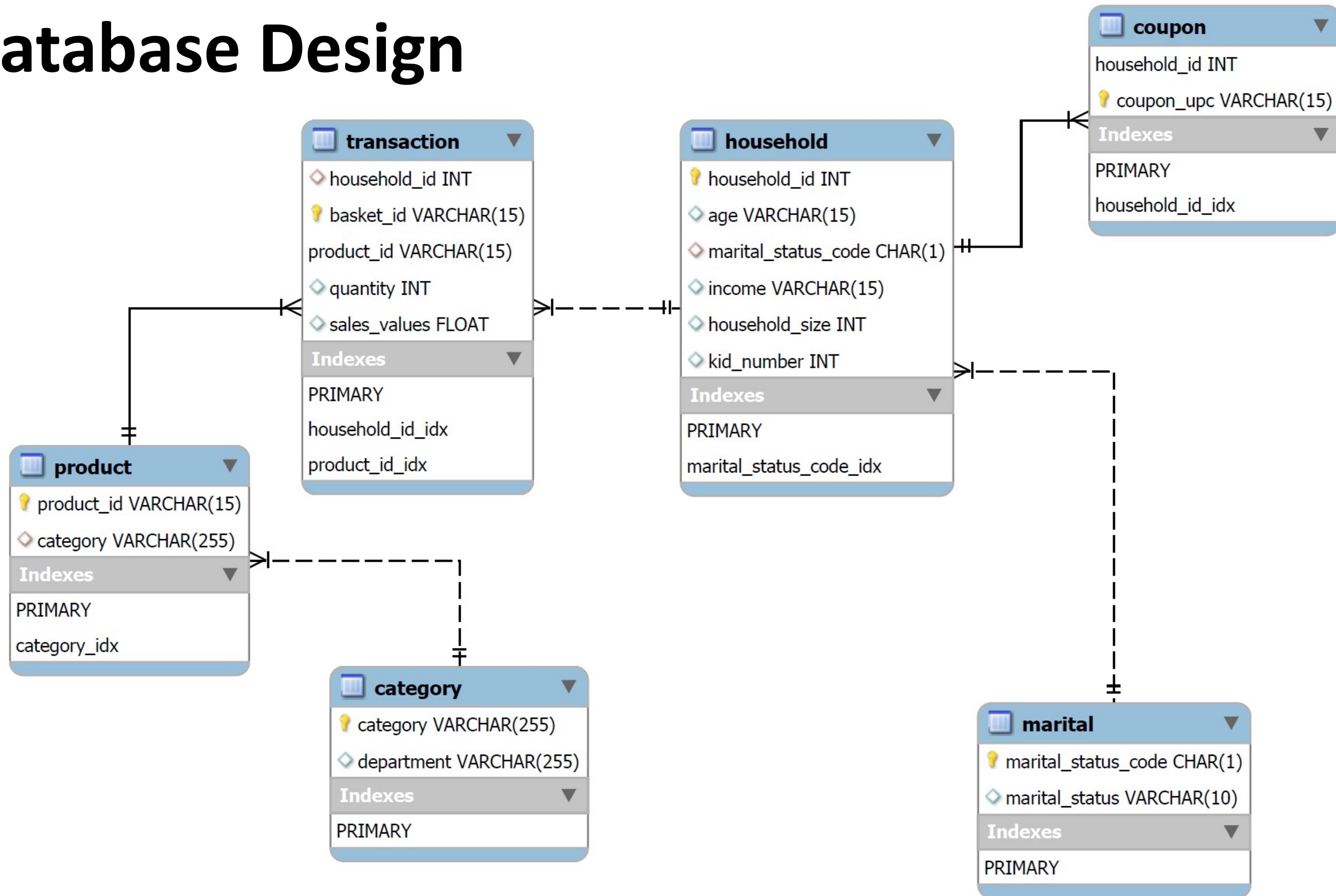


# Data Selection



- We focused our analysis on the 801 households that completed the survey.
- Using the random function from Excel, we randomly selected 20,000 rows from the remaining 1 million+ transactions.
- For the product table, we also narrowed down the original 92,354 rows to those that appeared in the transactions table.

# Database Design





## 0 error 0 warning Inc. — the best friend a retailer can have

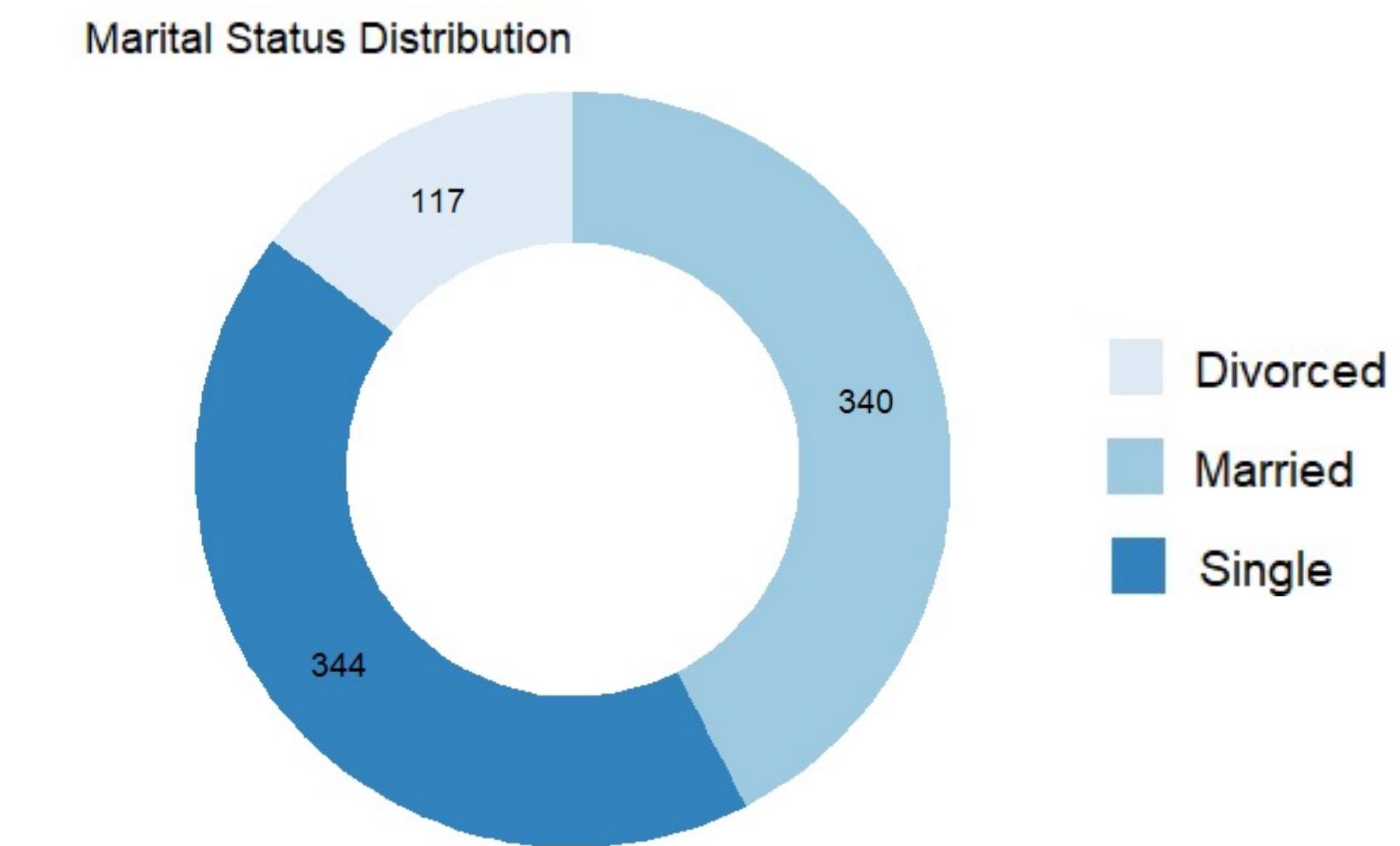
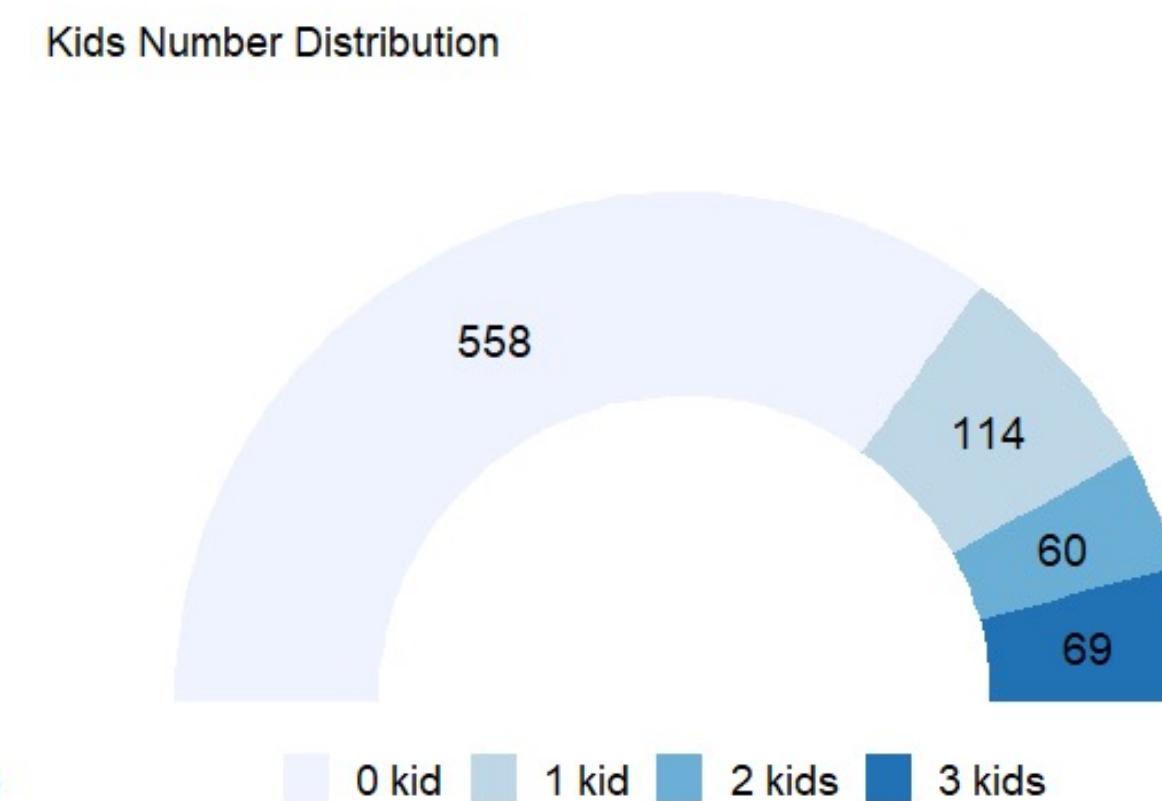
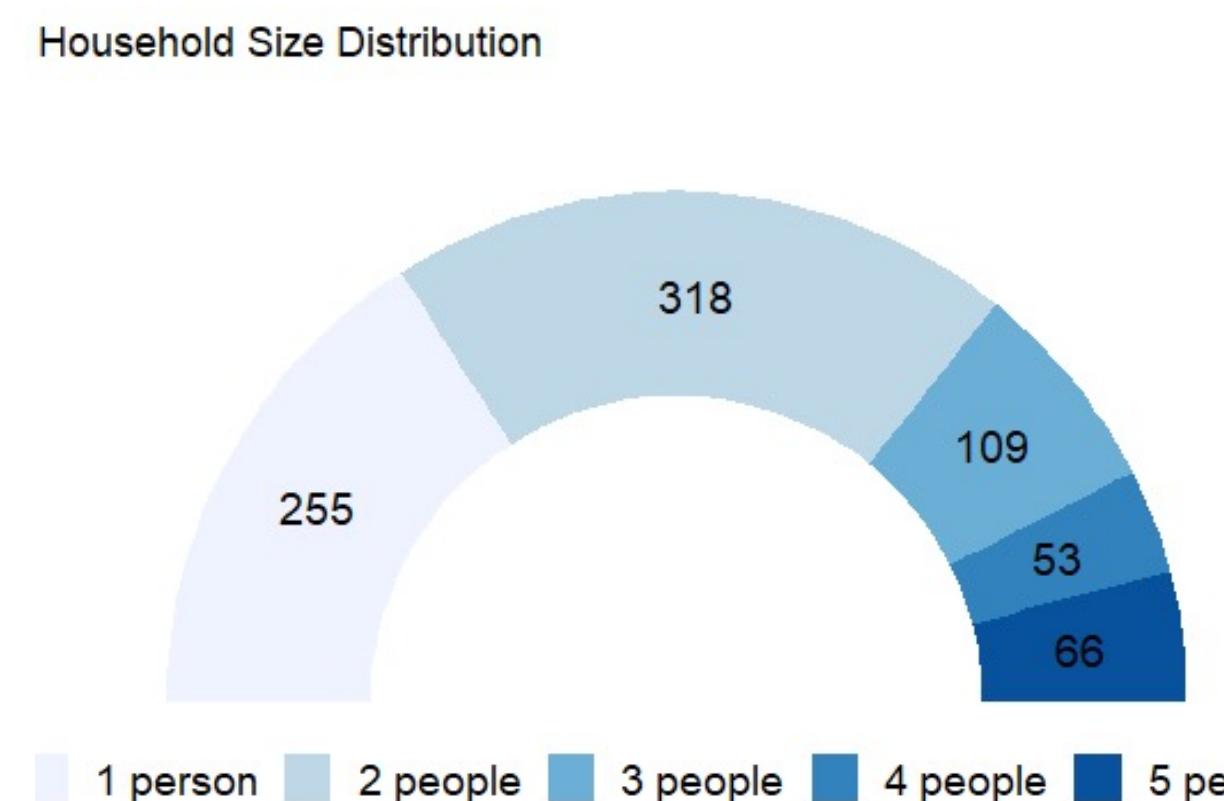
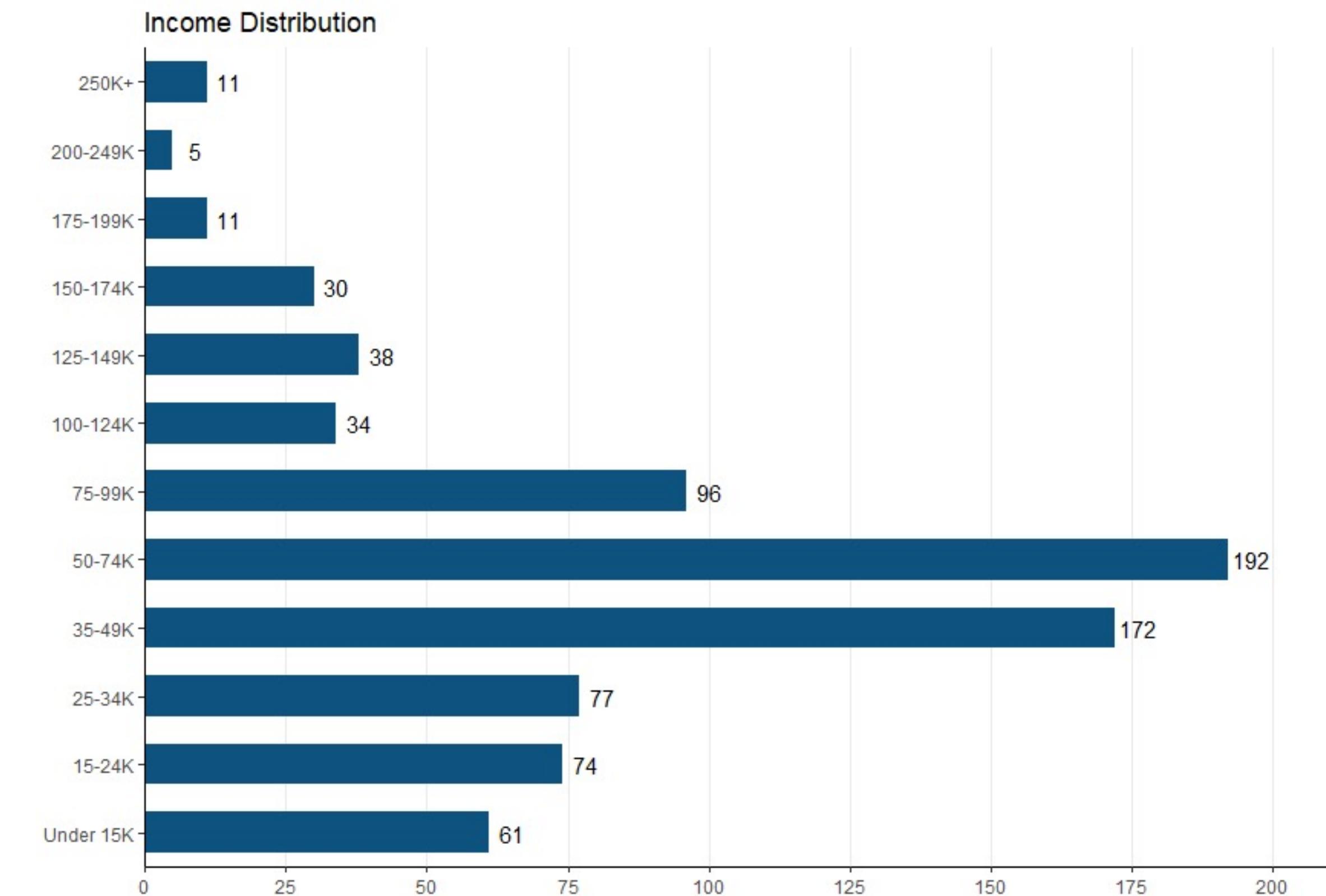
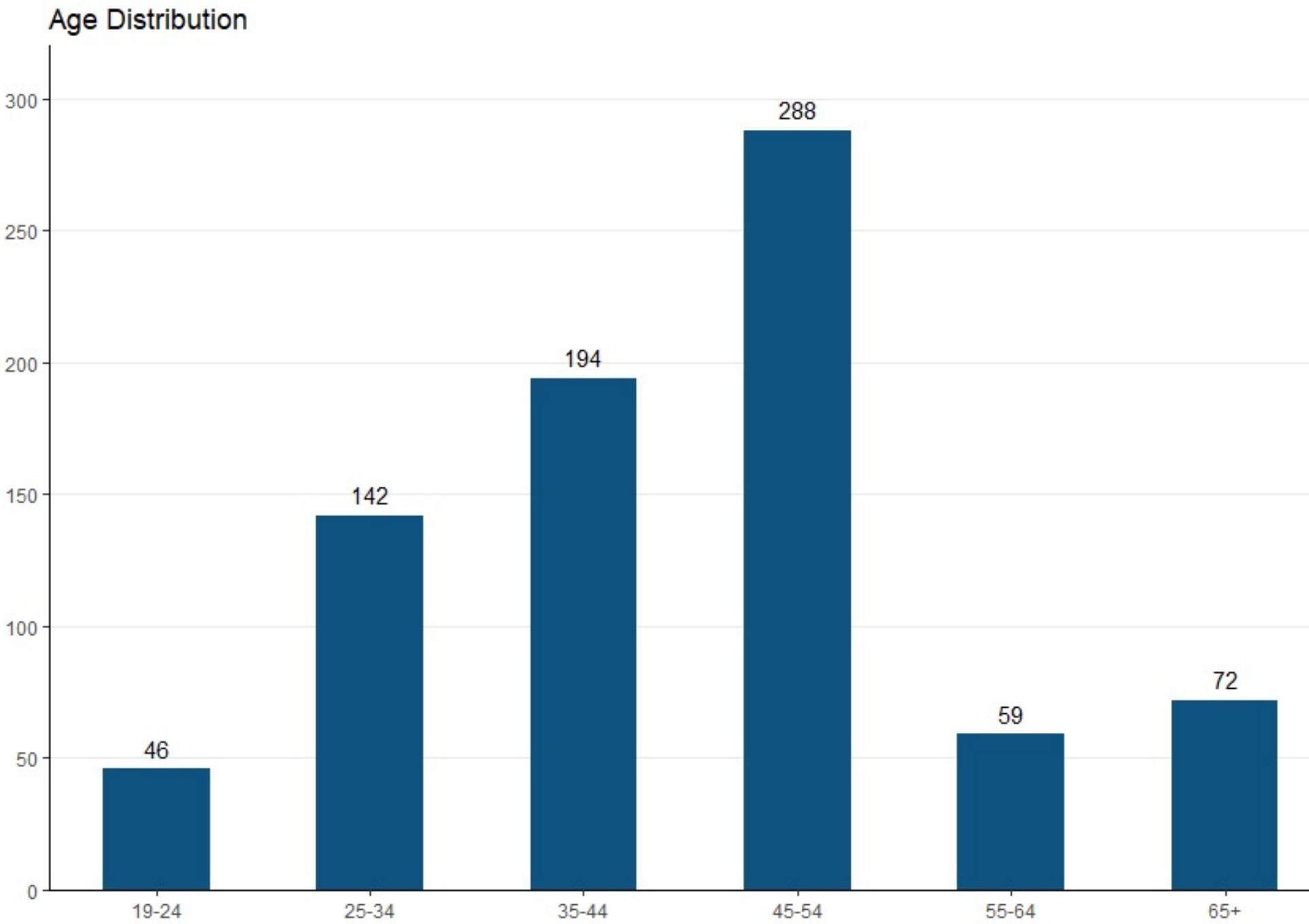
**By utilizing the big data of consumer, product, and transaction information, we help retailers achieve sustainable growth and smarter operations with customer-first strategies and advanced customer data science solutions.**

A data-based analysis will give retailers keen insights into stockings and storing, and well-designed layouts can help improve sales values.

### **In a nutshell, what we do are:**

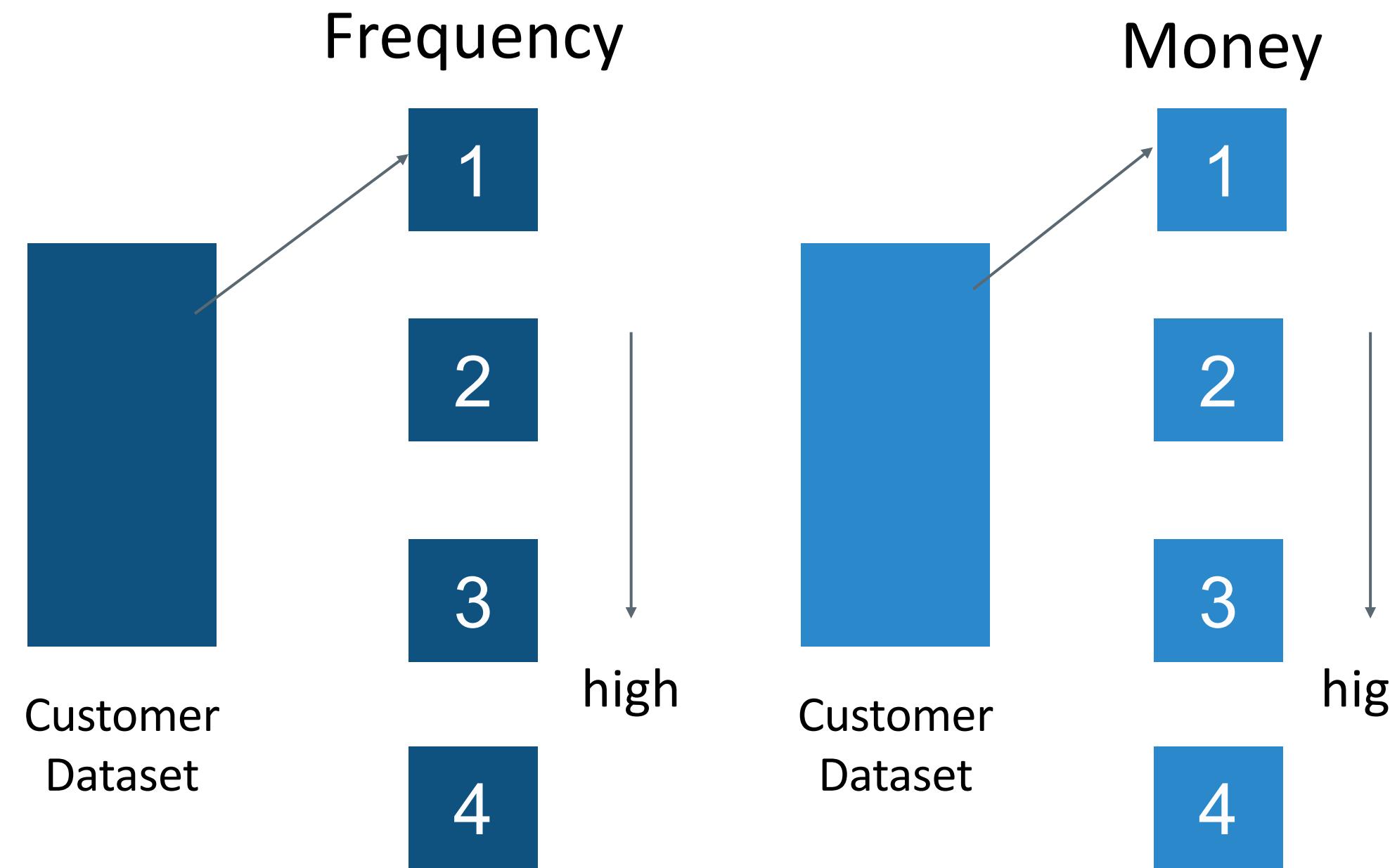
- (1) Solving business problems and fueling results by layering customer insights into every decision;
- (2) Uplifting sales, protecting margins, making cost savings, and preventing mistakes with greater operational efficiency;
- (3) Creating sustainable growth and new revenue streams through better use of customer data.

# Sample Demographic



# Customer Segmentation

The basic idea is that those who buy **Frequently**, or spend the most **Money** in the retailer, are high value buyers.



Create  $16 = (4 \times 4)$  different groups

SELECT

```
t_hh.household_id, frequency,  
CASE  
WHEN frequency < 13 THEN '1'  
WHEN frequency >= 13 AND frequency < 21 THEN '2'  
WHEN frequency >= 21 AND frequency < 33 THEN '3'  
ELSE '4'  
END AS frequency_group,
```

money,

CASE

```
WHEN money < 37.56 THEN '1'  
WHEN money >= 37.56 AND money < 63.55 THEN '2'  
WHEN money >= 63.55 AND money < 104.78 THEN '3'  
ELSE '4'  
END AS money_group,
```

age, income, household\_size,  
kid\_number, m.marital\_status

FROM

transaction\_hh AS t\_hh

LEFT JOIN

household AS h ON t\_hh.household\_id = h.household\_id

LEFT JOIN

marital AS m ON h.marital\_status\_code = m.marital\_status\_code

ORDER BY household\_id;

\* Save the result as transaction\_summary for next page



# Precision Marketing

```
SELECT
  *
CASE
  WHEN frequency_group = 1 OR money_group = 1 THEN 'low_value'
  WHEN
    frequency_group = 2
    OR frequency_group = 3
    OR money = 2
    OR money = 3
  THEN
    'potential_high_value'
  ELSE 'high_value'
END AS customer_value
FROM
  transaction_summary
GROUP BY customer_value;
```

## Customer Group

- High Value
- Potential High Value
- Low Value

## Precision Marketing

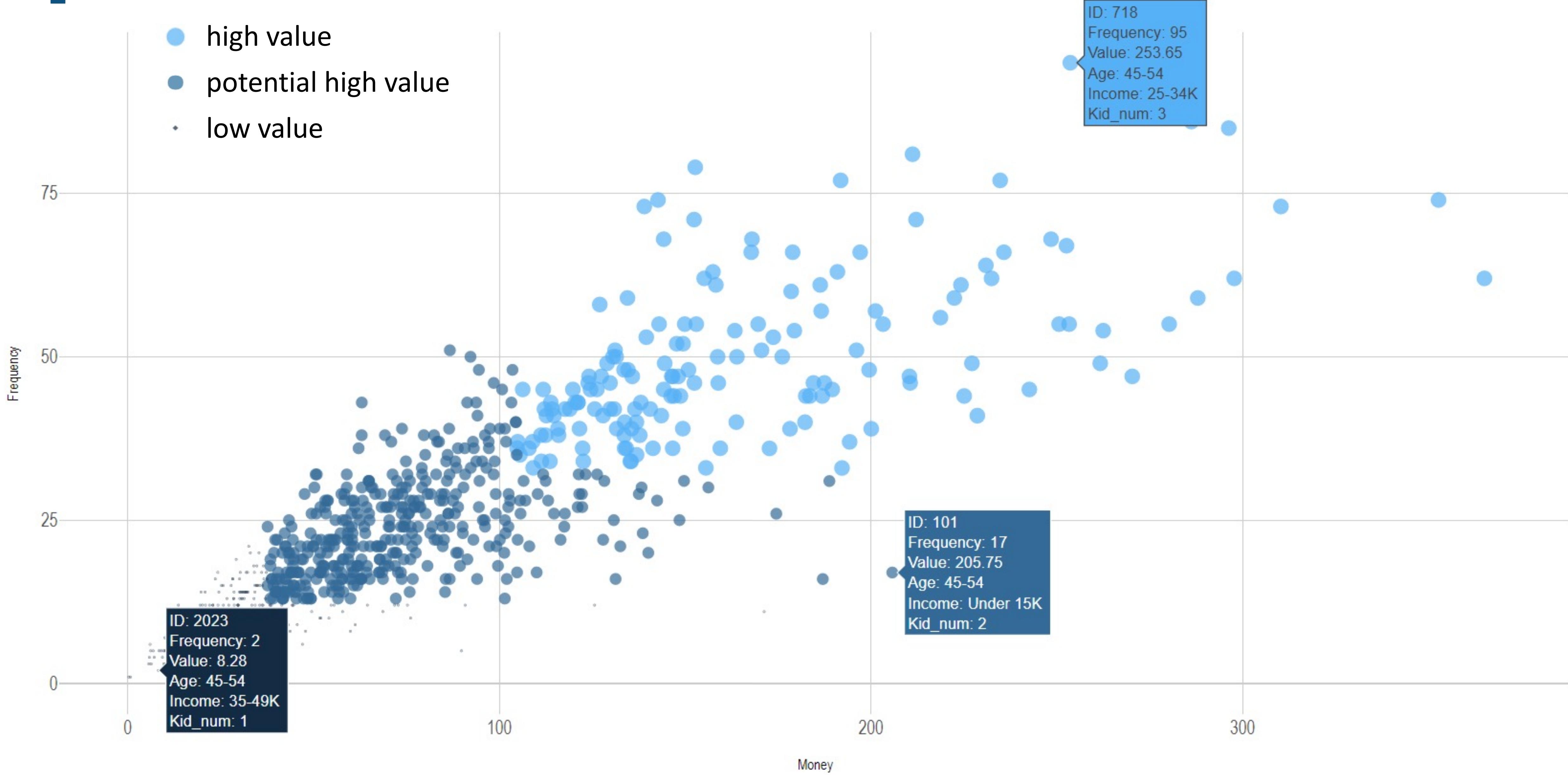
target only one subset instead of all  
customers

- Focus marketing budgets on high value  
customers
  - Offer incentives to potential high value  
customers
- reduce cost & increase revenue

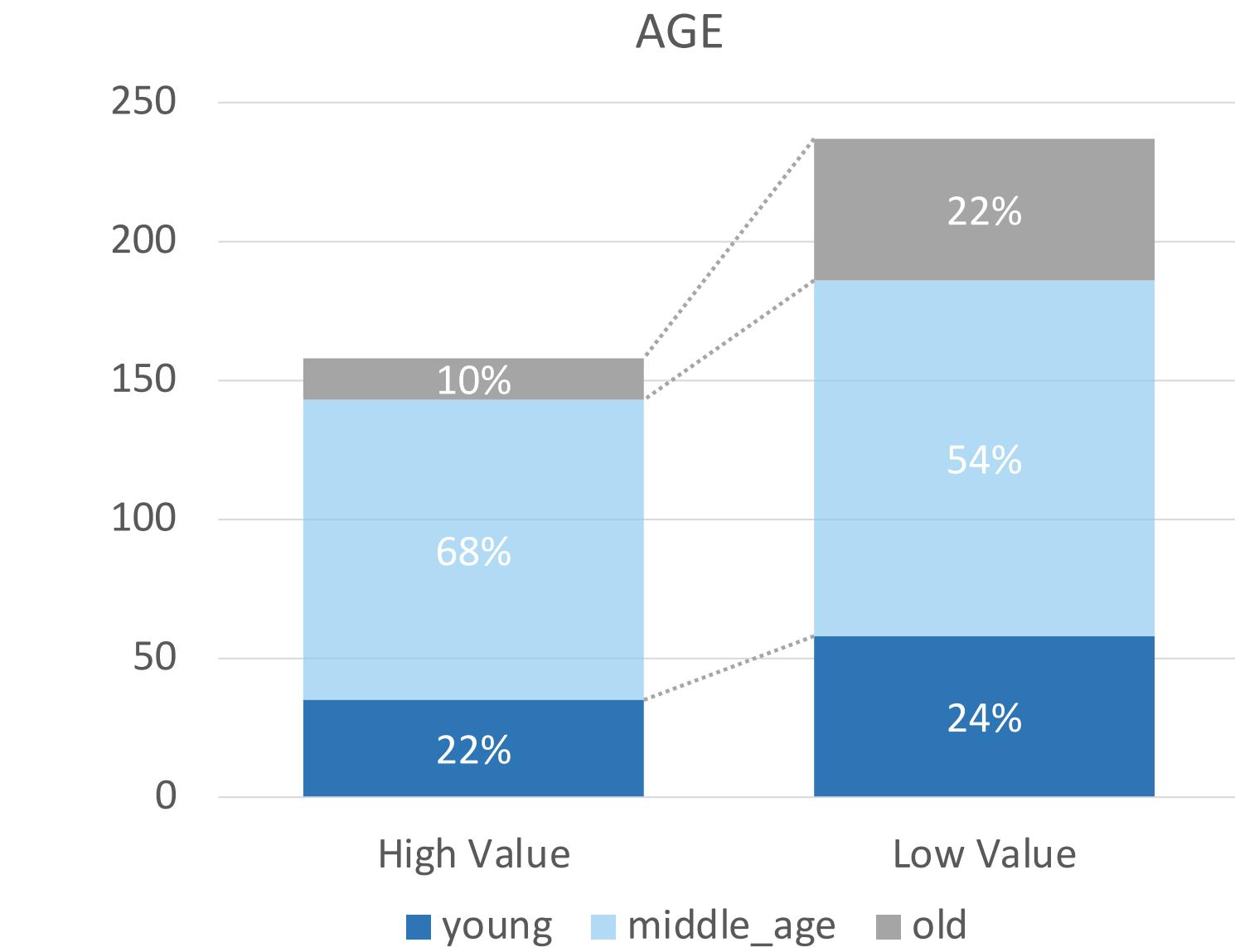
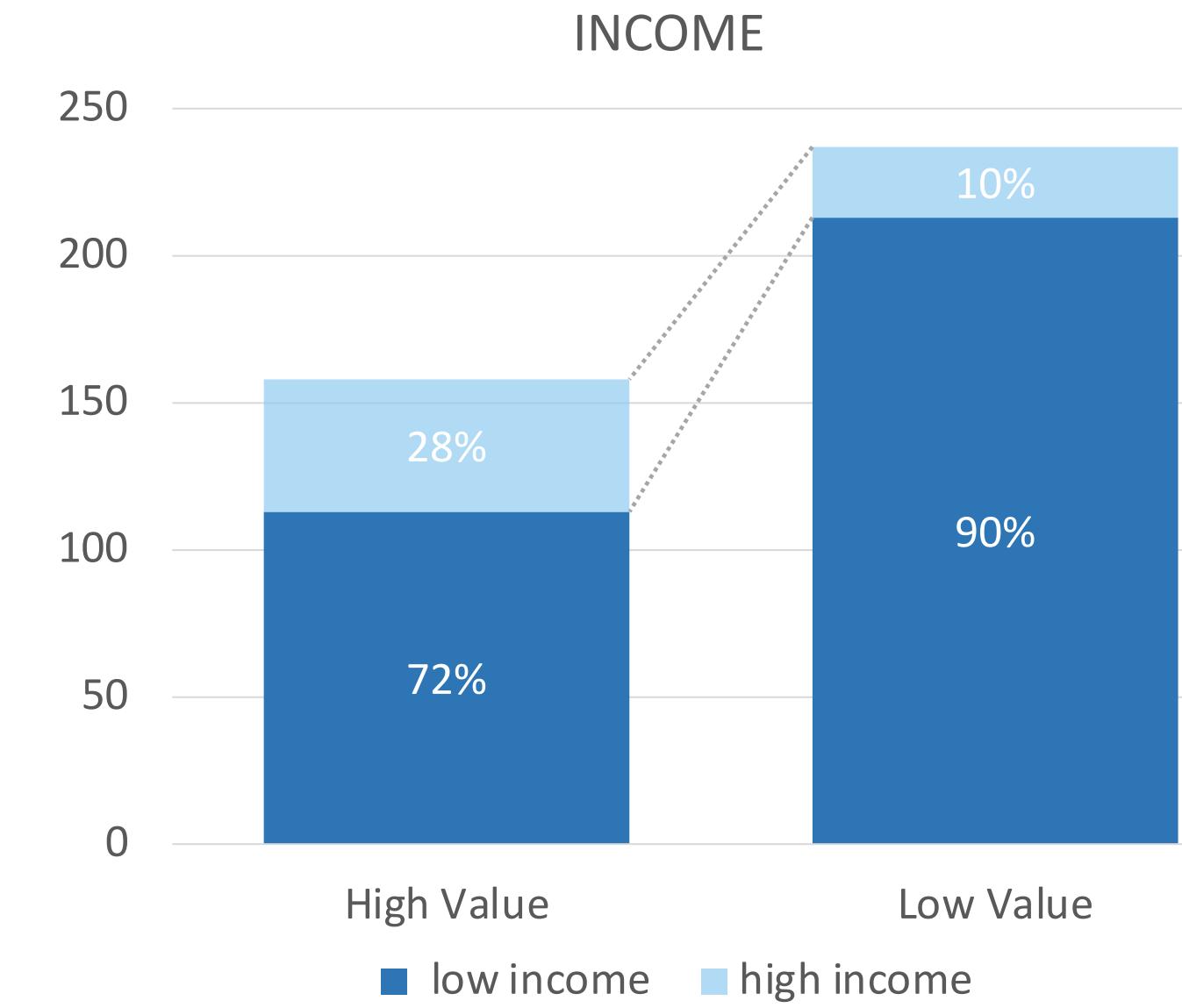
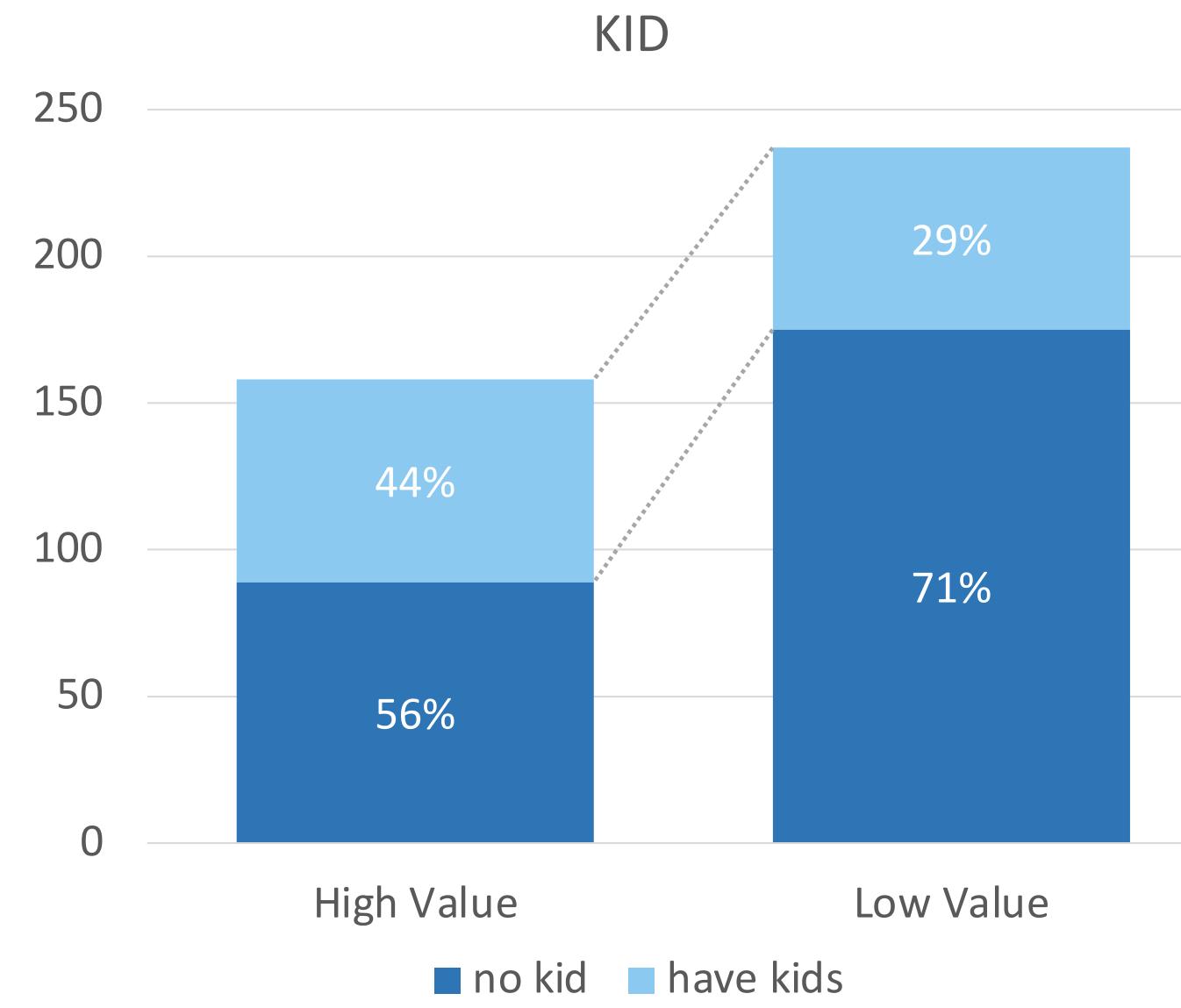


# Customer Profile

- high value
- potential high value
- low value



# Main Customer Profile

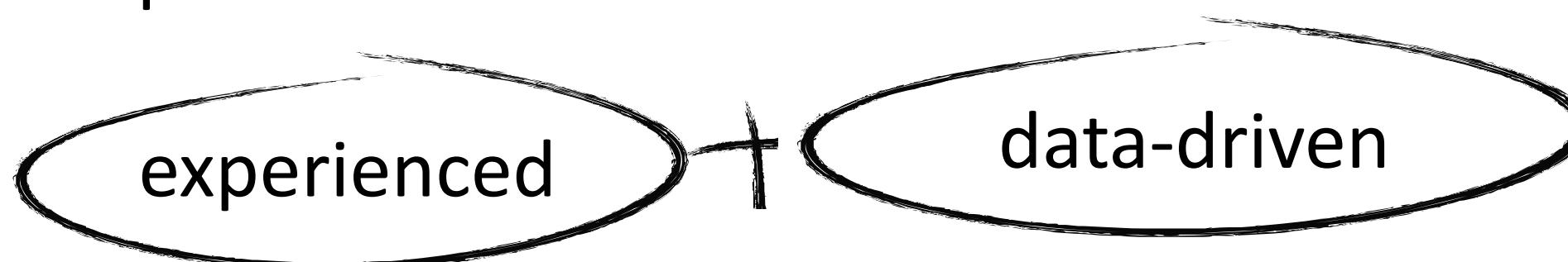


- Main target customers: middle-aged, high-income, have children.



## Inventory Arrangement

- Arrange the type and quantity of stock
- Choose new products to meet target customers' requirements

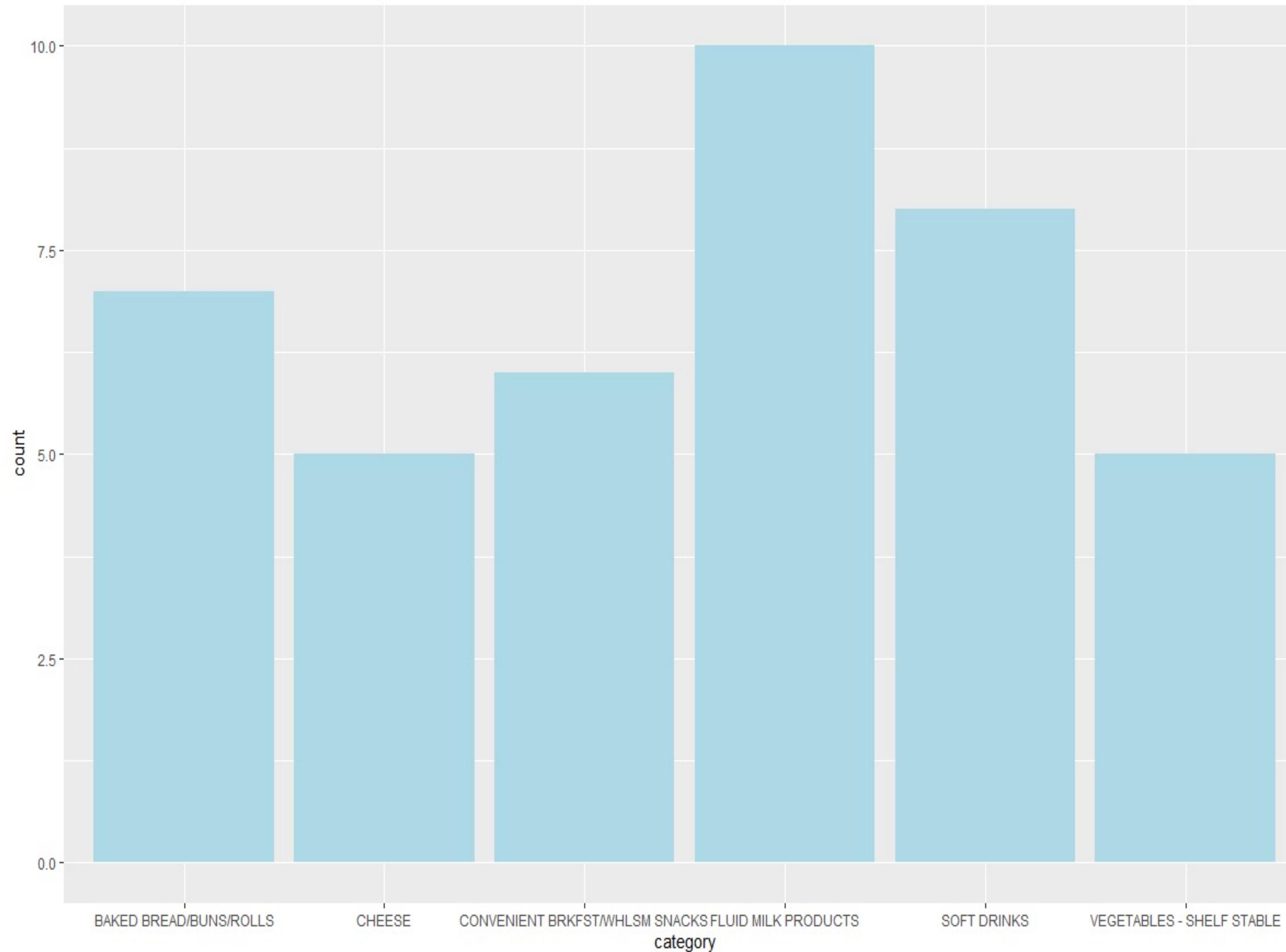


## Campaign Design Basis

- Cater for preference of target buyers'



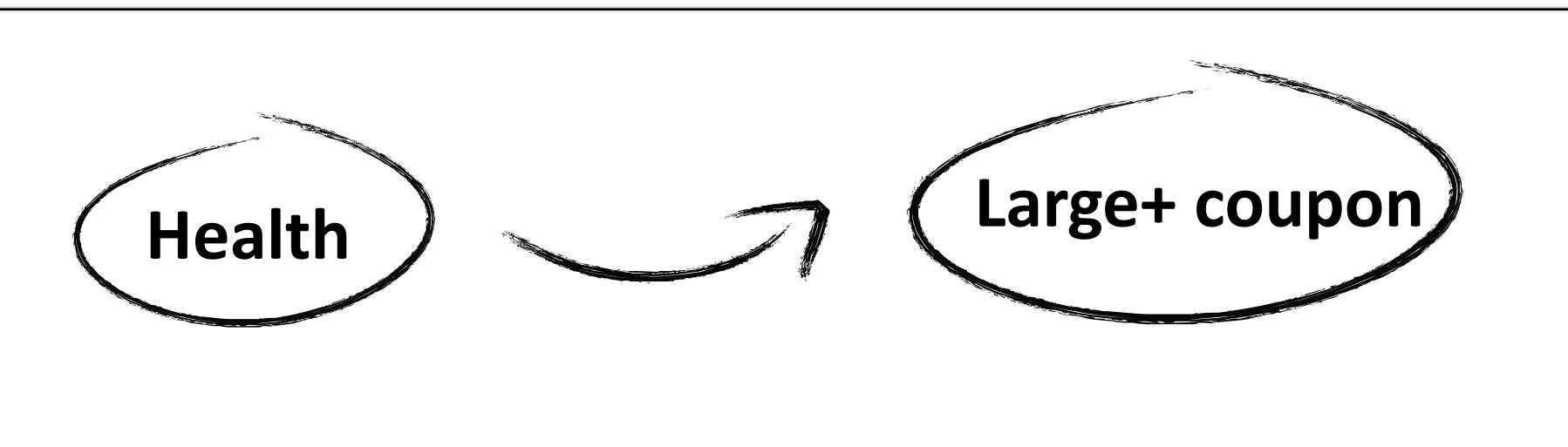
# Targeting Households with Children



Analysis & Targeting strategy

## Top 6 Commodities of Households With Kids

- Prefer nutritious food for kids' growth and family health
  - Send coupons that focus on nutritious food for these families
  - Provide large size of these products

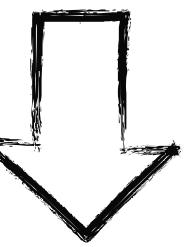


# Consumer Insights for Households Without Kids

## Demand



Cheese, frozen pizza and crackers give us information that these households care more about joy and convenience.



### ✓ Layout Redesign

This can be used in the layout of related products, the shelf organizer can put soft drinks and fast food together.

### ✓ Sales Promotion

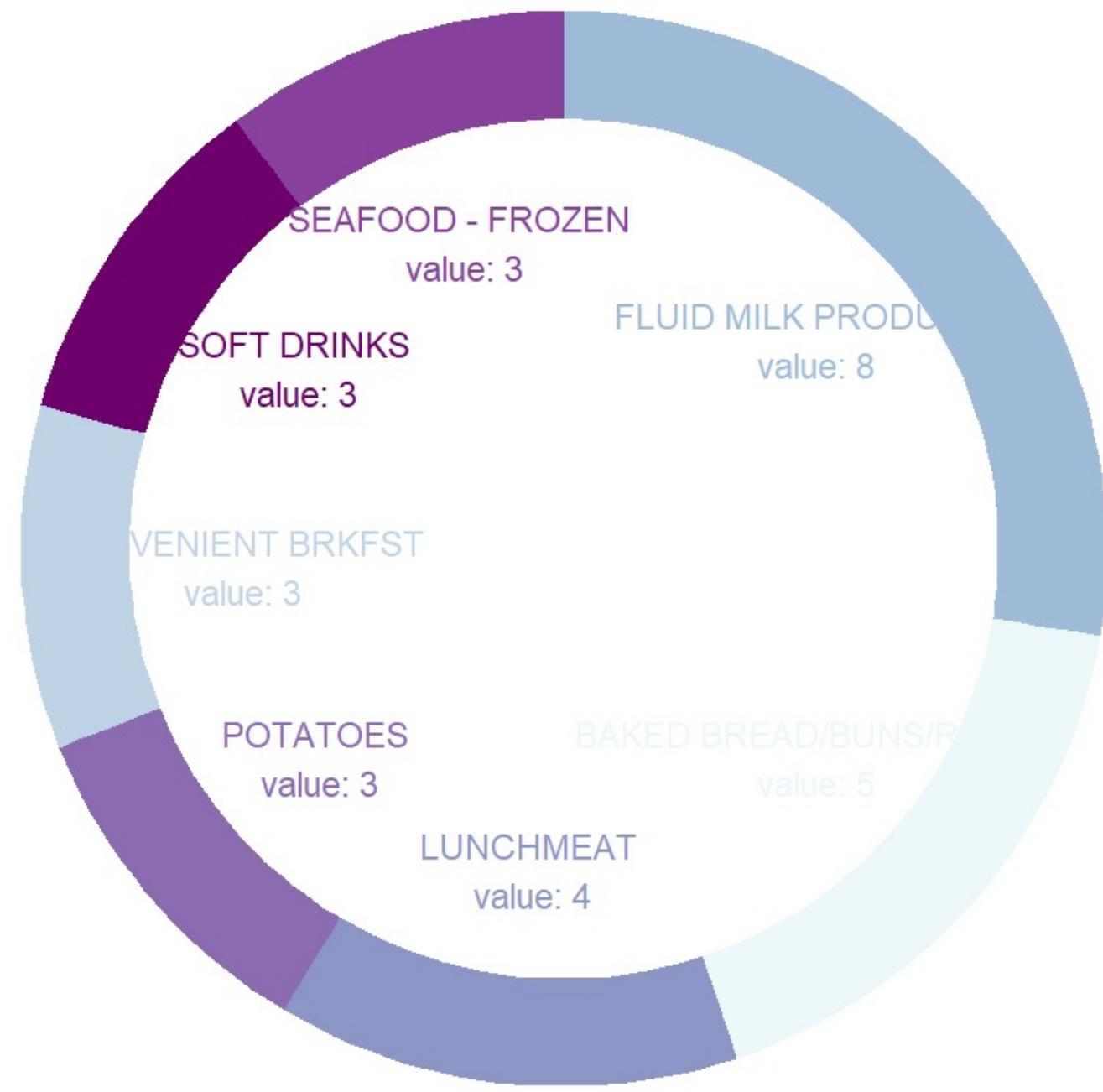
Put some free fast food for try, salesman can show how convenient to prepare for these food.

## WordCloud for Popular Products



# Strategy for High-income Households

## Top Sales for The High-income



### Focus

- They pay more attention to the quality of the product

### Targeting Strategy

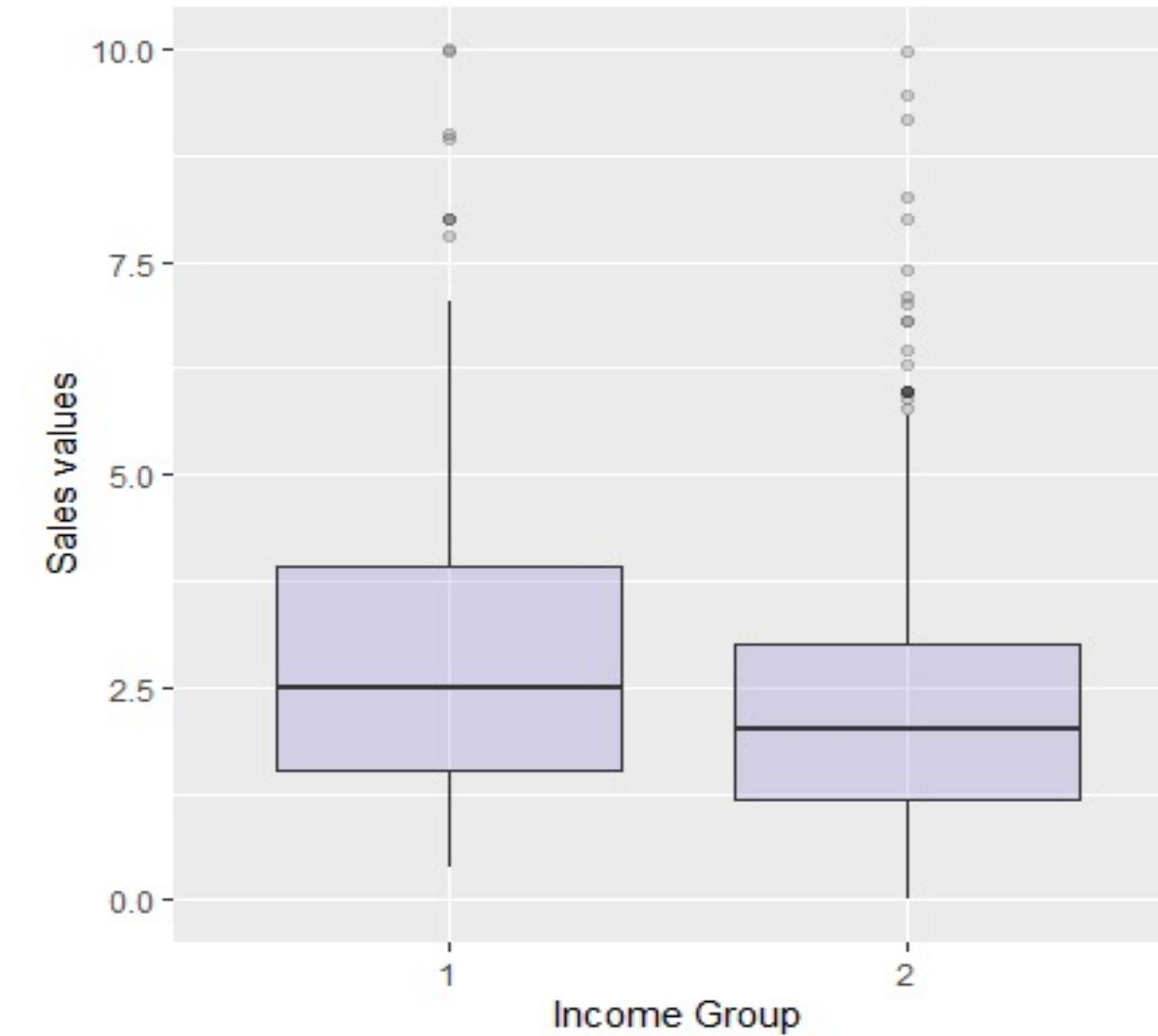
- Have a differentiated plan: introducing the advanced level
- Increase price



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## Pricing Strategy

For the advanced products which favored by high-income households



Boxplot for different income groups

Group 1 for high-income group

Group 2 for low-income group

\*To better comparison,  
extreme outliers were removed

### Based on the average historical sales values

- The average sales value for every product bought by high-income group is 3.89, and 3.09 for low-income group

### Reasonable premium rate is 25%

- It shows that high-income households are willing to pay 25% higher, so retailer can raise price for advanced level products

# Different Age Groups' Favorites

## 1 Young Age Group

- The ability to consumption is in the middle
- Consume for some fun
- Love fast food

## 2 Middle-aged Group

- Consume the most
- The responsibility to raise family
- More chances to cook

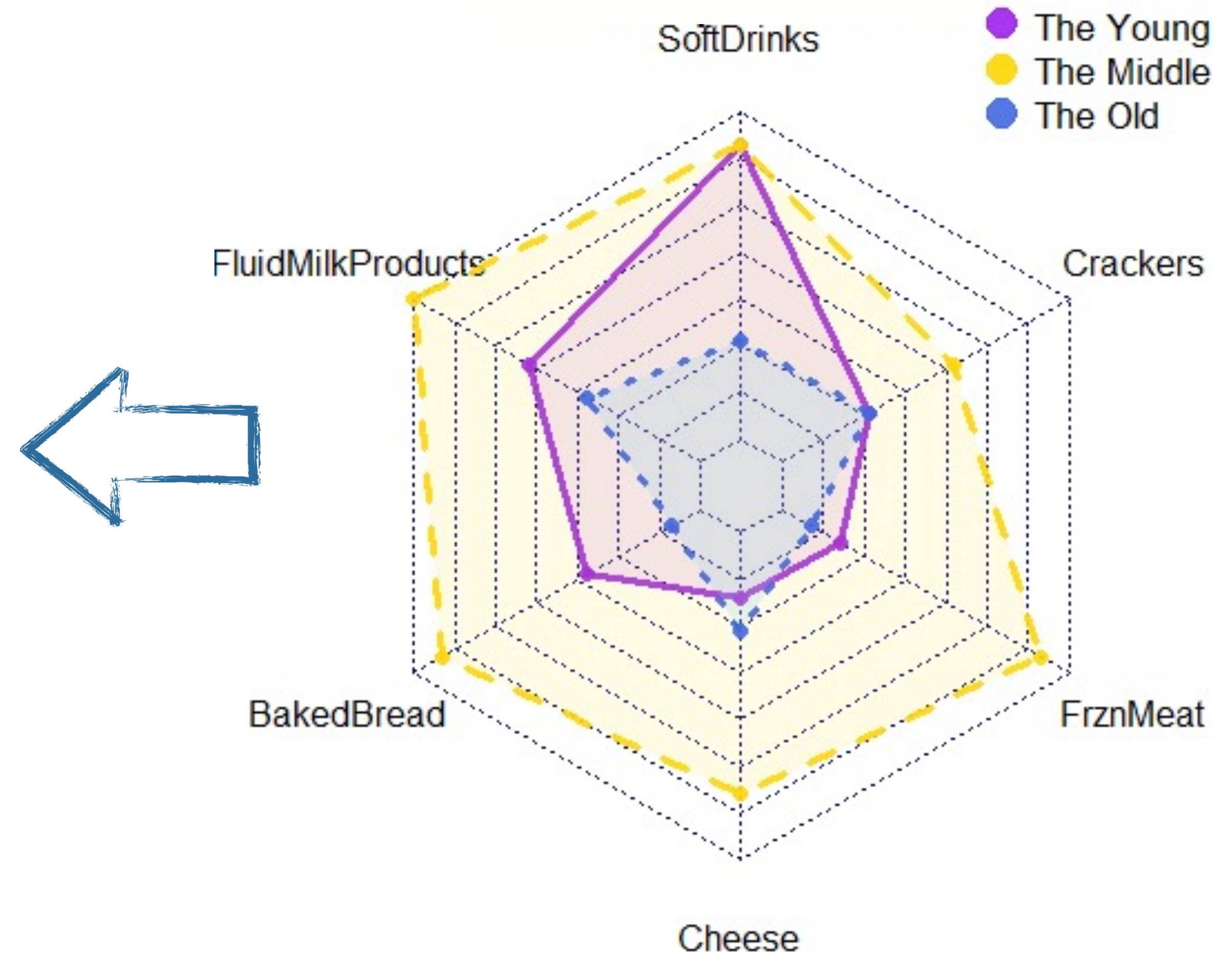
## 3 The old

- Consume the least
- Prefer soft food

## Our Strategy

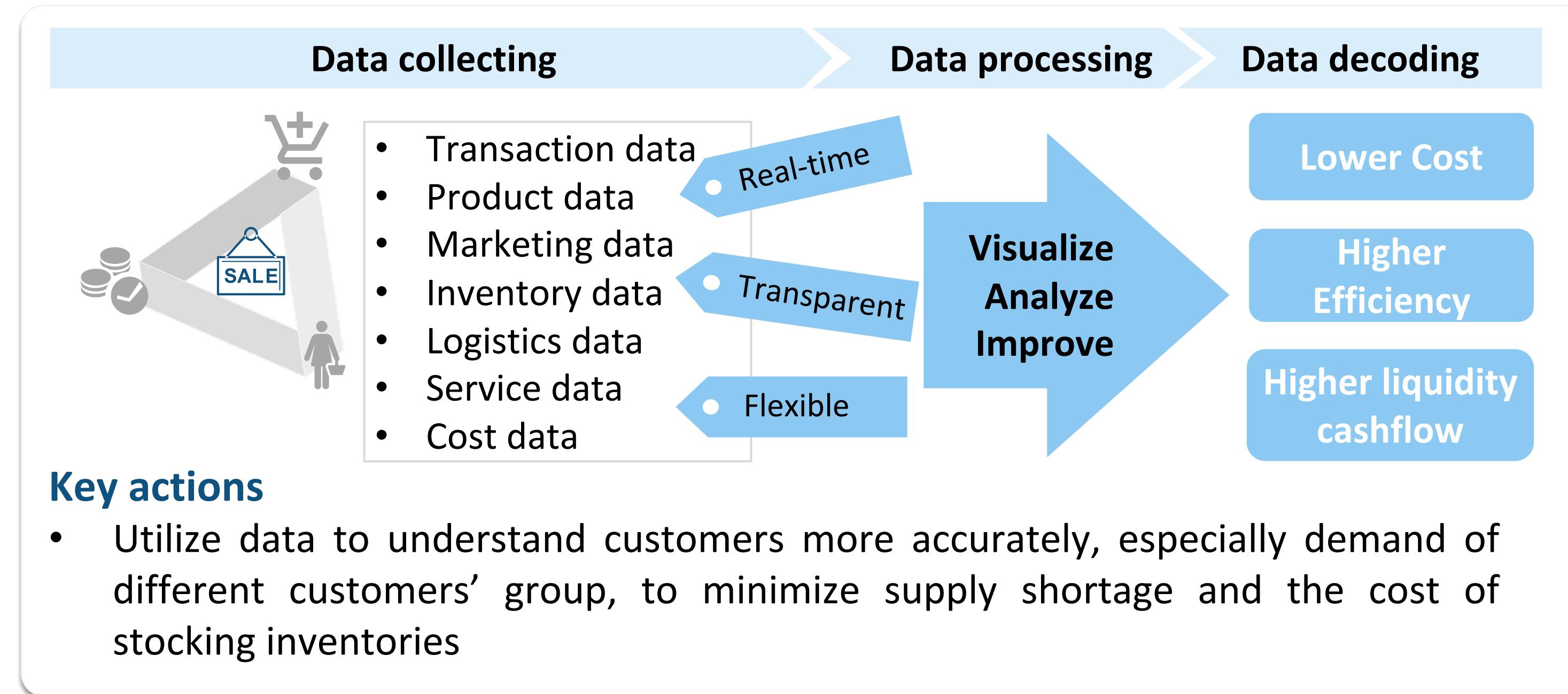
- Pay more attention to the middle-aged group, because they are main consumers
- Sales man can make promotion based on the different age group (what they're likely to buy)

Radar Chart for different Age Groups



# How to make your store become competitive by using Big Data?

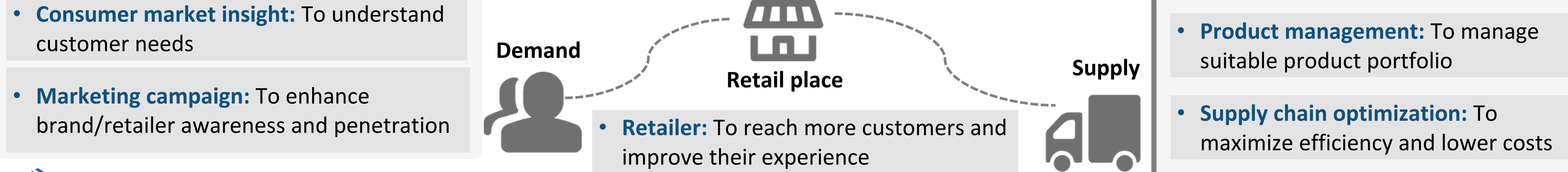
## 1 Embrace Collaboration and Empower Big Data



## 2 To activate integrated digital supply chain



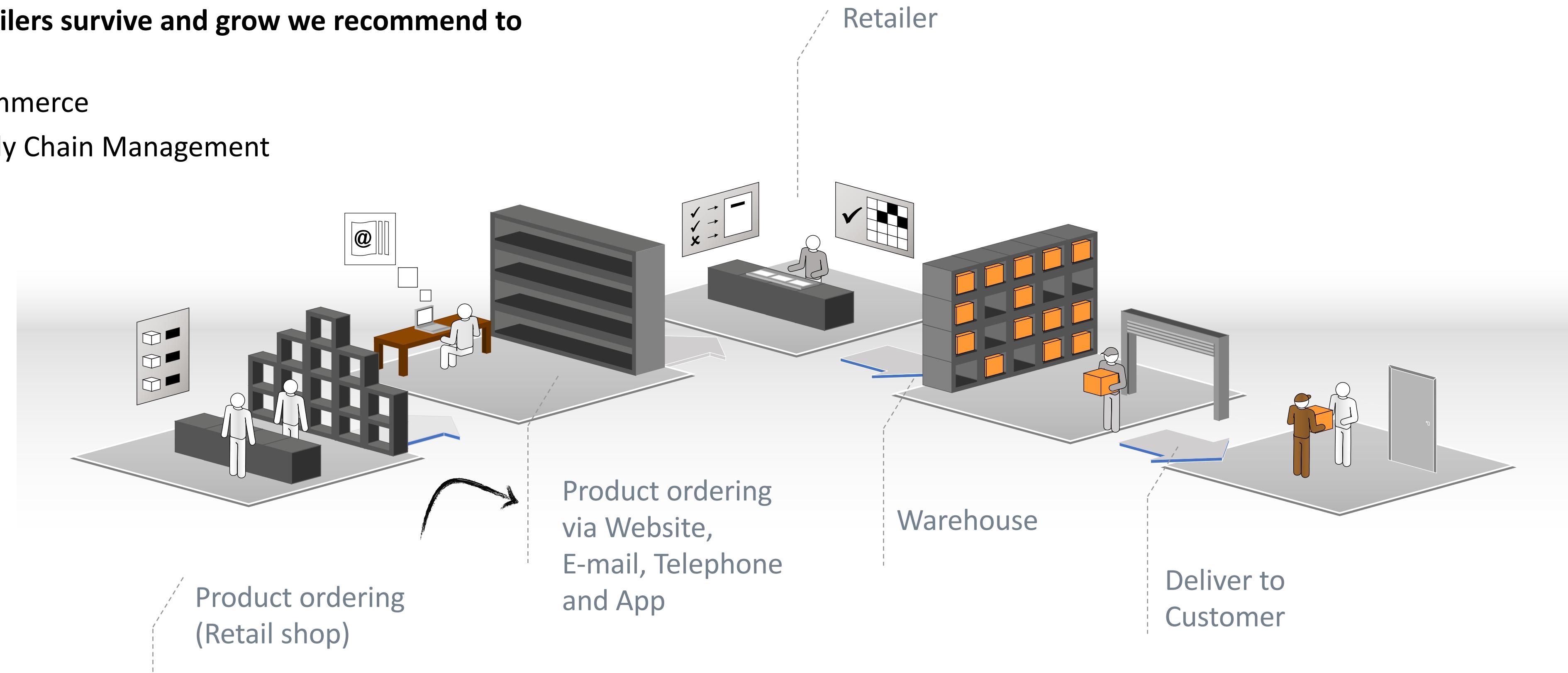
### Our Business Solution: How should the retailer establish its unique competitive advantage?



# Back to the reality: Impact of Covid-19

To help retailers survive and grow we recommend to improve:

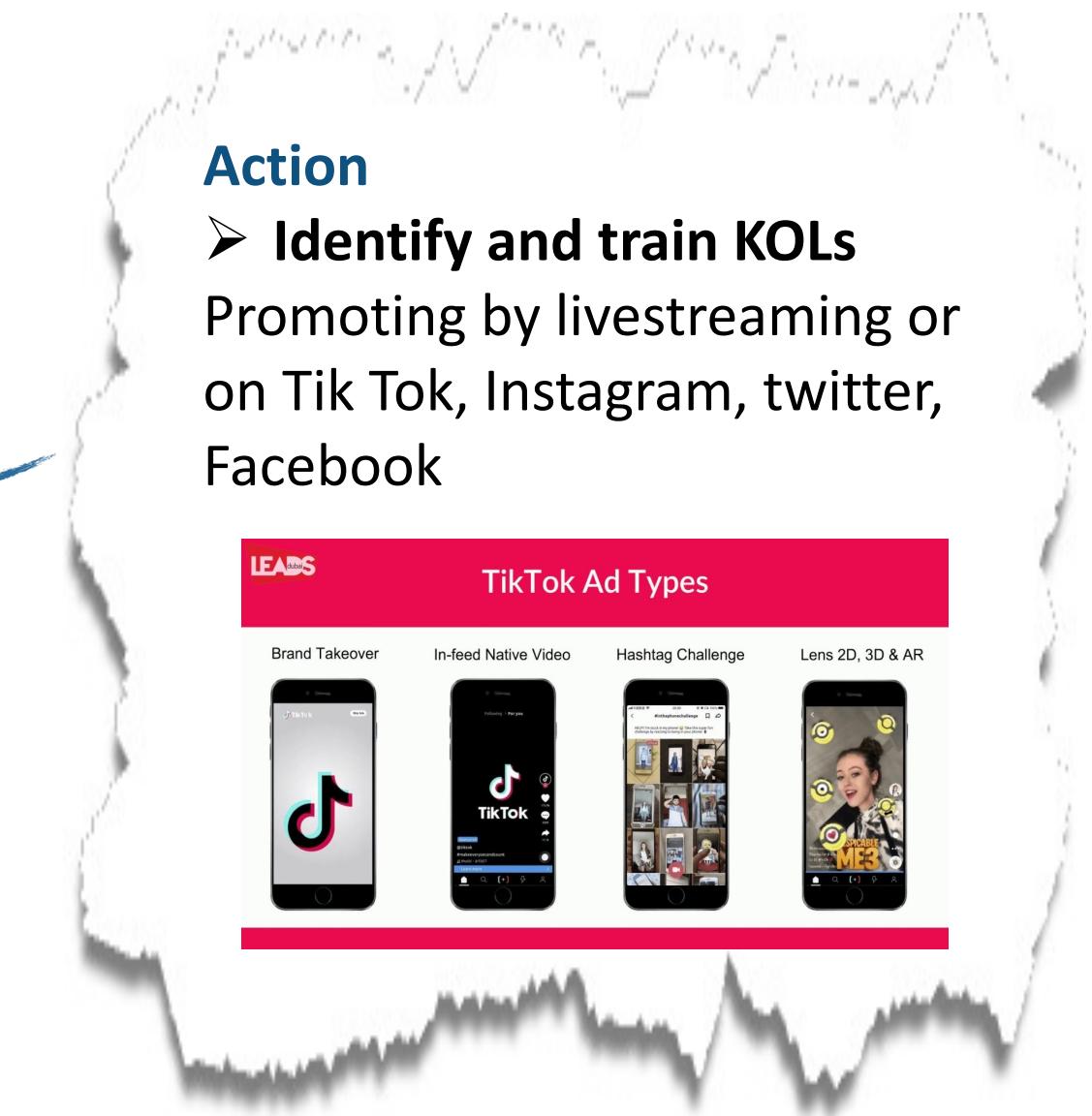
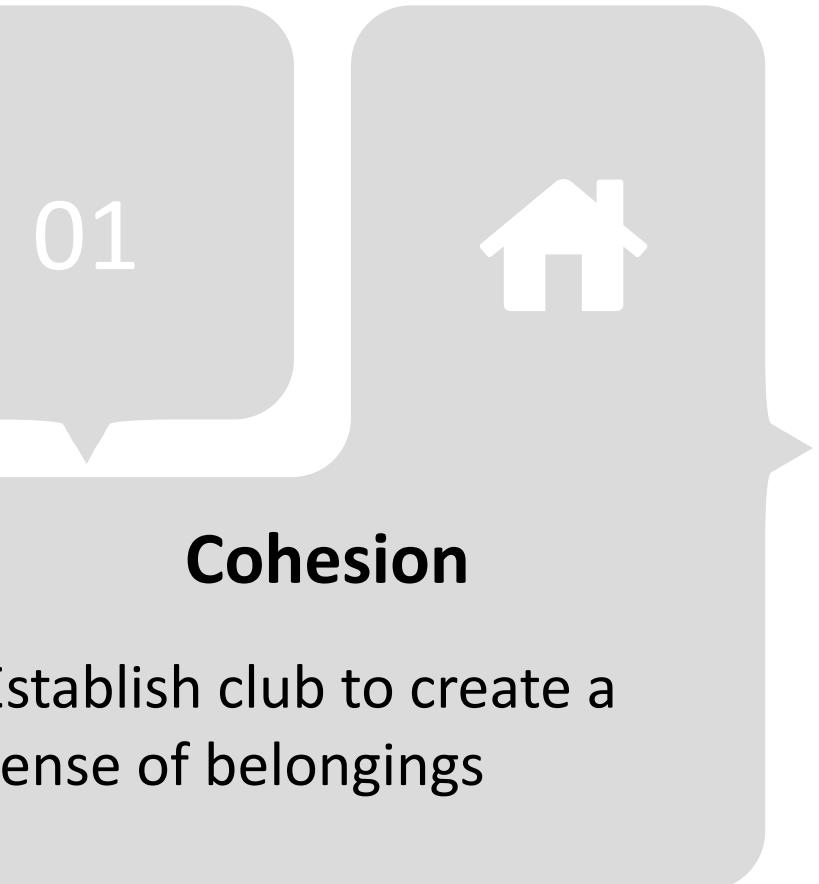
- ▶ E-commerce
- ▶ Supply Chain Management



Customer Journey		Discovery	Evaluation	Purchase	Share	After-sales
Online ( Current )	Social Media	Receive ads via Email & retailer's social media account	Read KOC contents & social comments	Redirect to E-commerce	Share with friends	
E-commerce		Recommended by SEO and ranking	Go through consumer feedback	Reserve and order online	Give comments	Chat lively, Join loyalty program Gift & Coupon



# Activate Highly-tightened Consumers Community



# Maximize your data assets to drive a Customer First approach

Tired of driftless marketing ?



Non-target      Little Response

High cost

What we offer?

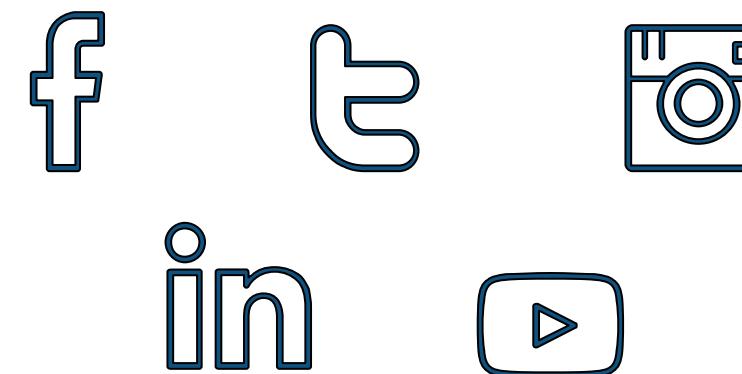
Customer Knowledge



1. Targeting Strategy
2. Customer data Solution
3. Upgrade Customer Segmentations
4. Deliver loyalty driver analysis

How we promote?

1 We will do promotion which focus on high-frequency customers to improve our success rate.



2 Help brands merchandise with our marketing strategy

Based on our data analysis we'll:

- ✓ Tell customers what they're likely to buy based on data of other customer that they're similar with
- ✓ Running ads for our cooperated brands and retailers

For future plan?



Impact of Covid-19?

Ask advice for E-Commerce?

How to utilize big data?

Have no idea how to improve customer loyalty?

...

Our professional team will give you suggestions.

Key Success Factors	Accessibility	Feasibility of Merchandizing	Interactivity	Operation Capability	Sales Growth Potential
	<ul style="list-style-type: none"><li>✓ Within easy reach of target consumers</li><li>✓ Suitable for consumer learning and product trying</li></ul>	<ul style="list-style-type: none"><li>✓ Display with designed layout</li><li>✓ Promotion based on big data</li></ul>	<ul style="list-style-type: none"><li>✓ Various resources of interaction</li><li>✓ Deep conversation with consumer</li></ul>	<ul style="list-style-type: none"><li>✓ Standard operation and management</li><li>✓ Convenient purchase process</li><li>✓ Good CRM</li></ul>	<ul style="list-style-type: none"><li>✓ Distribution sales growth</li></ul>

please

# Contact us.

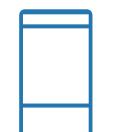
If you have further question, please do not hesitate to reach out to us using the following methods.



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