

The background of the slide is a blurred photograph of a supermarket interior. Shelves are packed with a variety of goods, including packaged foods, personal care items, and household supplies. The lighting is bright, typical of a retail environment.

dunnhumby

# Driving Retail Store Performance

Through Customer Analytics and Targeted  
Campaigns

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# | OVERVIEW



## What is Dunnhumby?

Business intelligence company and a global leader in customer data science and analytics, **experts in working with brands and retail**.



## Dataset Brief

- Contains **2,500,000 household level transactions** who are frequent shoppers at a retailer.
- Covering data of a 2-year period of time, from **2017-2018**.

# | EXECUTIVE SUMMARY

## **1. Distribution of Sales of All Stores is Not Balanced**

- The total of 583 stores don't have a balanced distribution of sales value. Then, 80% of the sales value contribution is generated by 12% out of 583 stores that are defined as performing stores. While the rest, are defined as underperforming stores. In the underperforming stores, 96.6% stores have below the average monthly growth sales (<9.3%).

## **2. Solving Problem for Underperforming Stores**

### **1. Finding the most efficient campaign**

- Out of 30 campaigns on transaction, campaign 18 gave the best performance compared to the other 29 campaigns, based on their Conversion Rate and ROI metrics.

### **2. Finding potential customers**

- The top Segment is Best-Customer with the lowest recency, highest frequency, and highest monetary value. Best-Customer is 20.24% out of 2500 household who have 50-74k income and their age are 45-54 years old.

## **3. Recommendation**

- By running campaign 18 to the Best-Customer, the average growth daily sales can be increased by 0.19%.

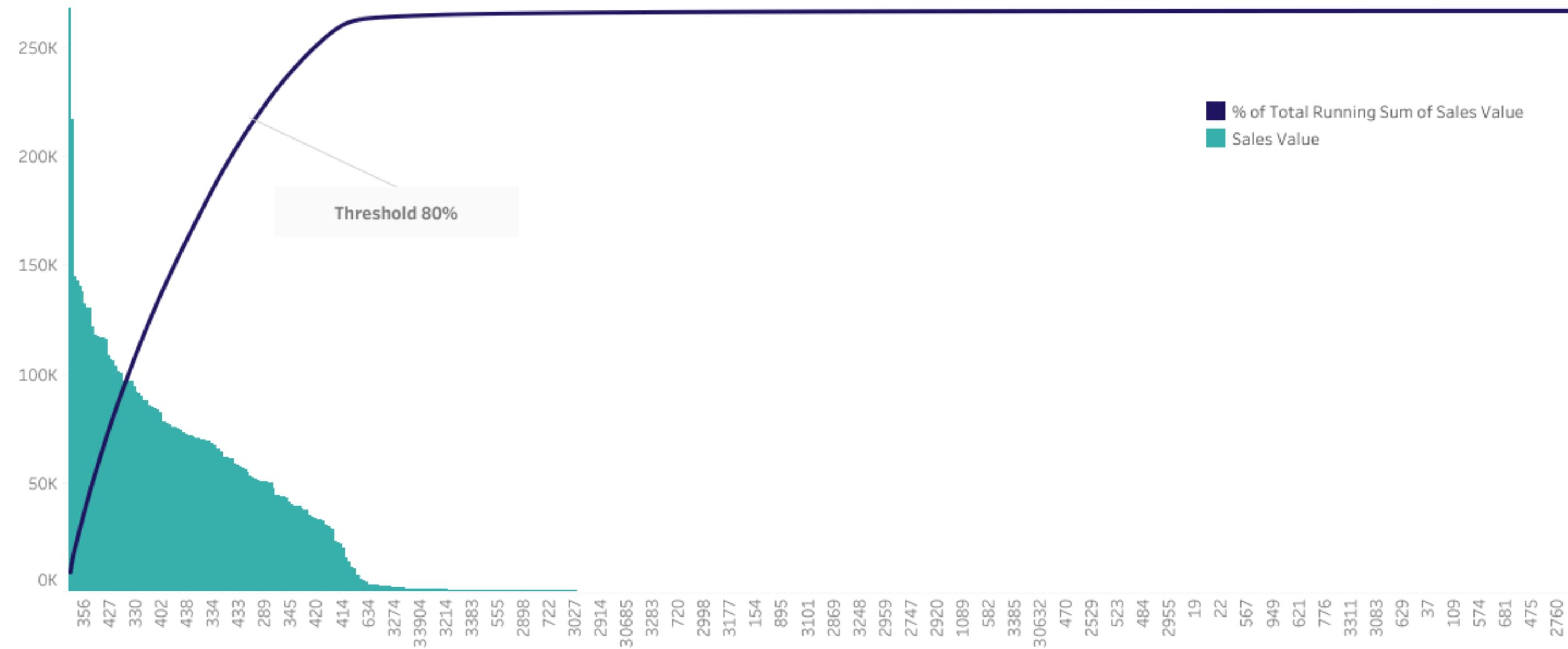
# RESEARCH QUESTIONS



# DEFINING STORES PERFORMANCE - 1

80% of the sales value contribution generated by 12% out of **583 stores** are defined as **performing stores**. While the rest are defined as **underperforming stores**.

Pareto Chart of Sales Value and Store ID

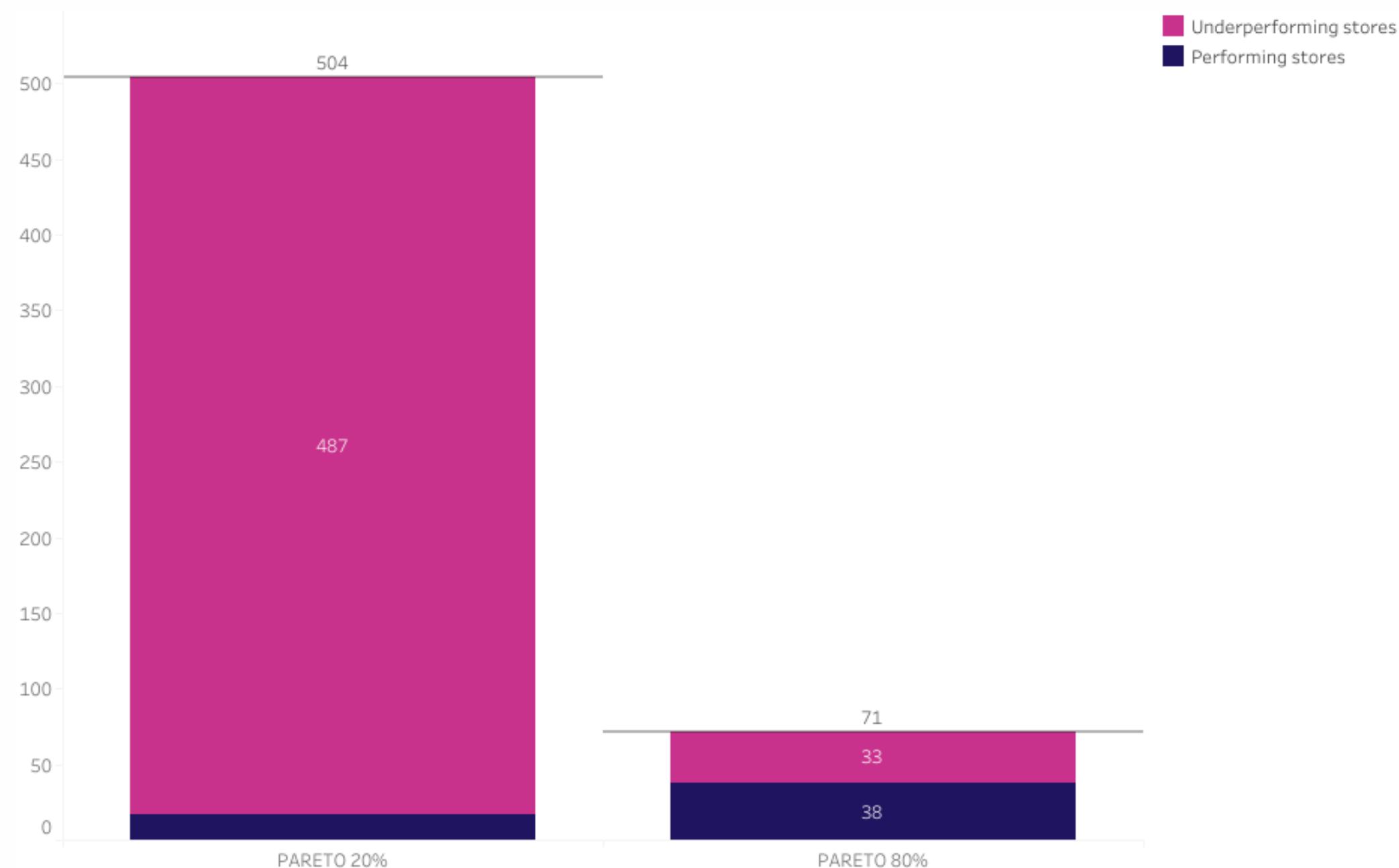


## DEFINING STORES PERFORMANCE - 2

The average compound of monthly growth sales of the total stores is 9.3%.

In PARETO 20%, **96.6% stores are underperforming**.

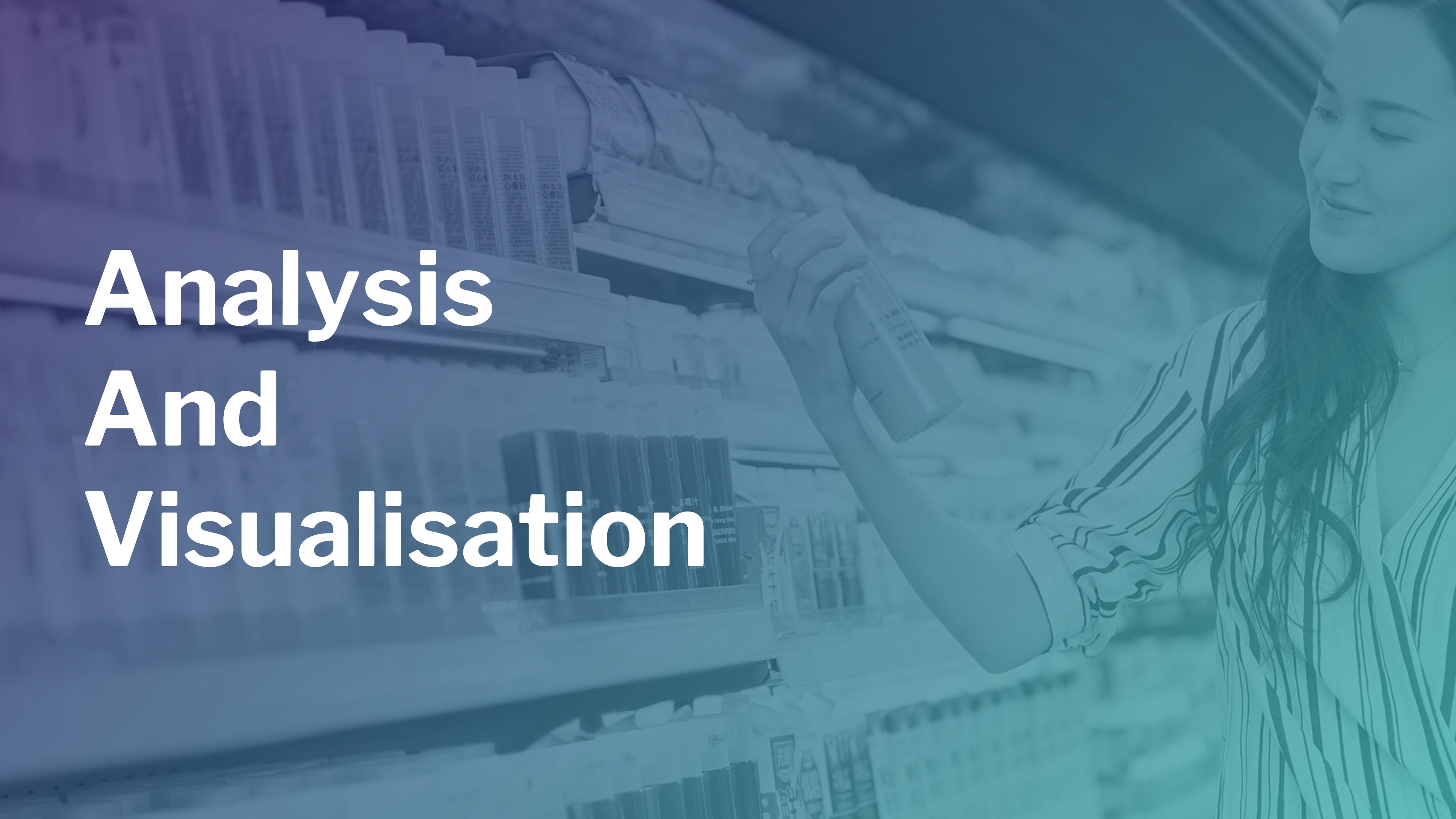
Underperforming Stores Number Based on Average Growth Sales





How to increase sales value of underperforming stores within 2 months?

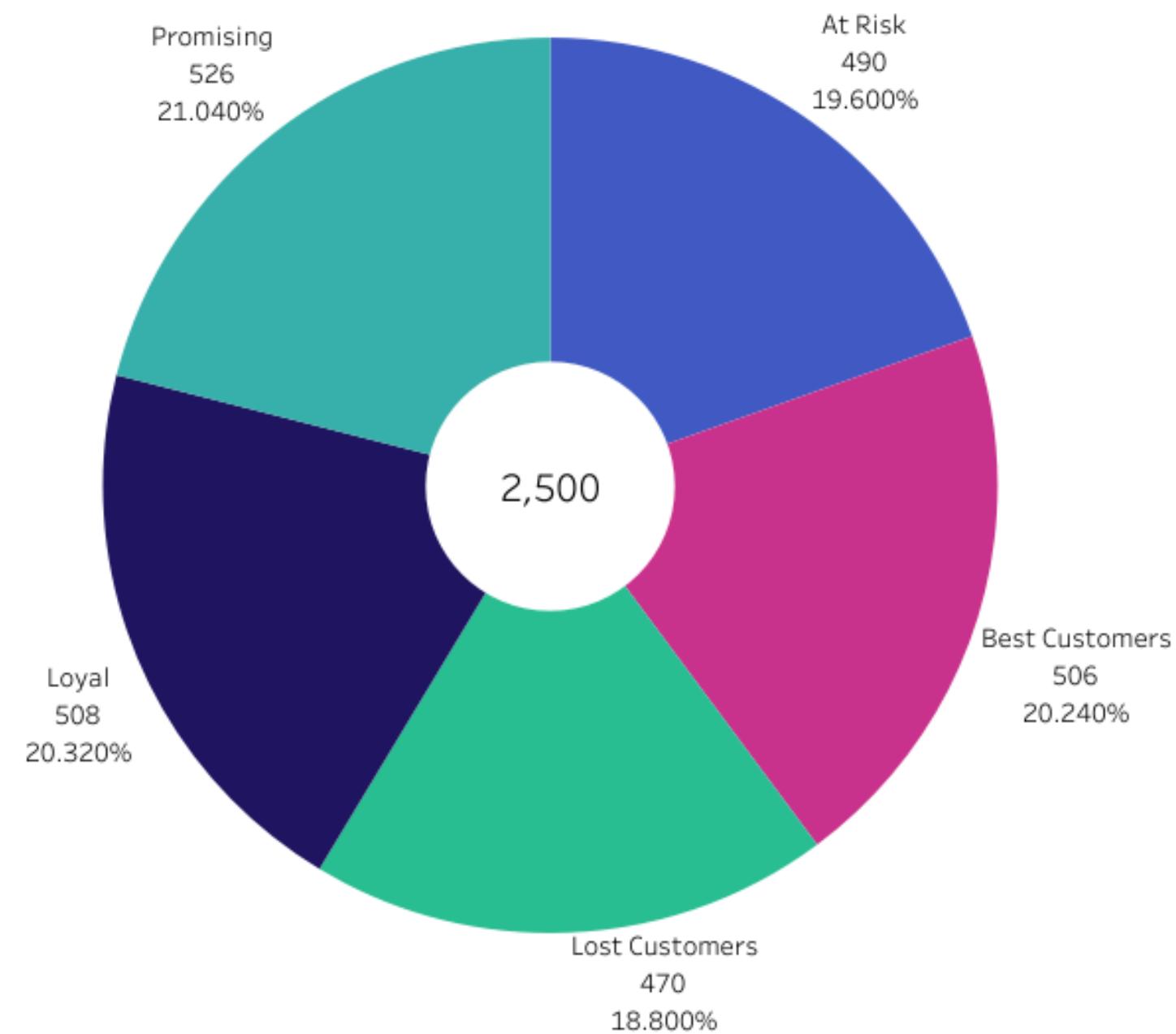
# Analysis And Visualisation



# FINDING POTENTIAL CUSTOMER

The biggest customer segmentation is **Promising**, followed by **Loyal Customers** and **Best Customers** by Recency, Frequency, Monetary (RFM) model.

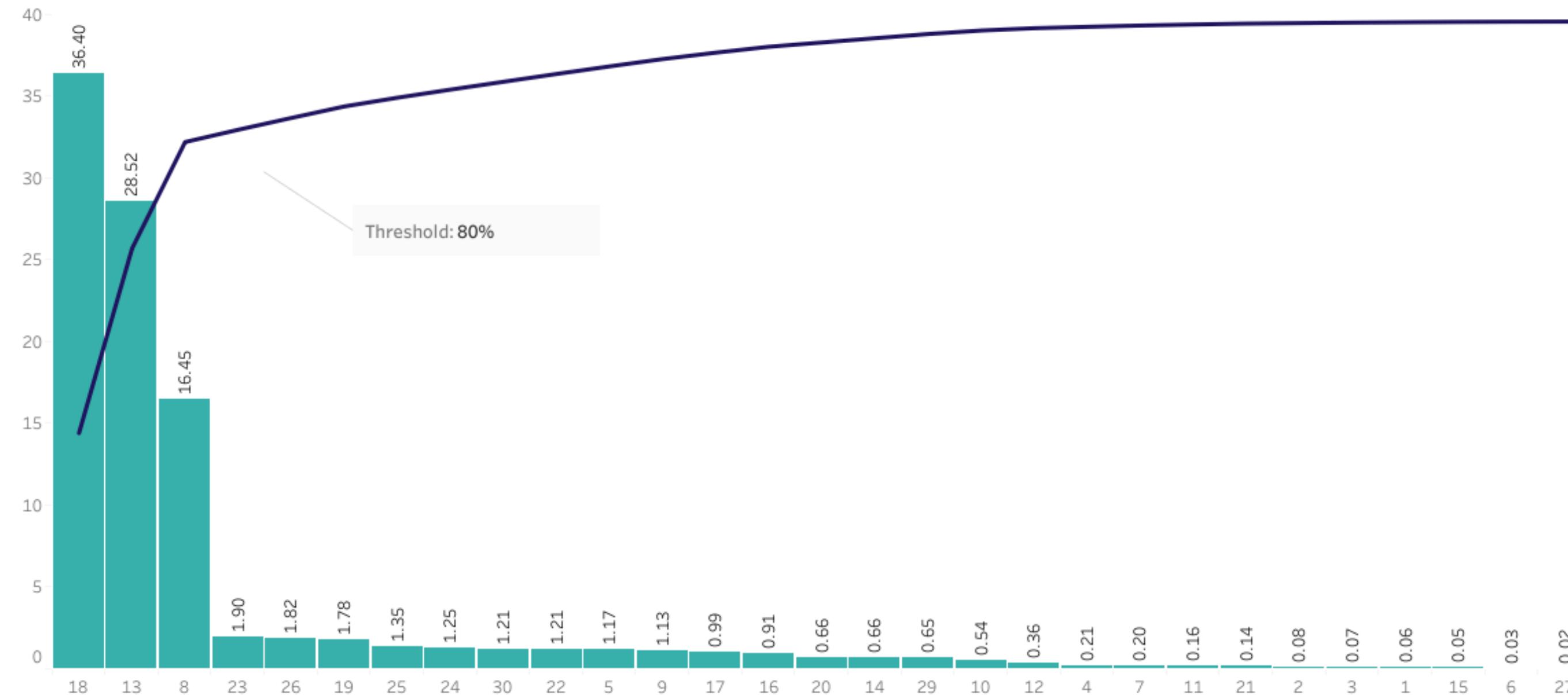
## Customer Segmentation



# FINDING AN EFFECTIVE CAMPAIGN - 1

**Top 3 Campaigns** generate 80% of sales combined.

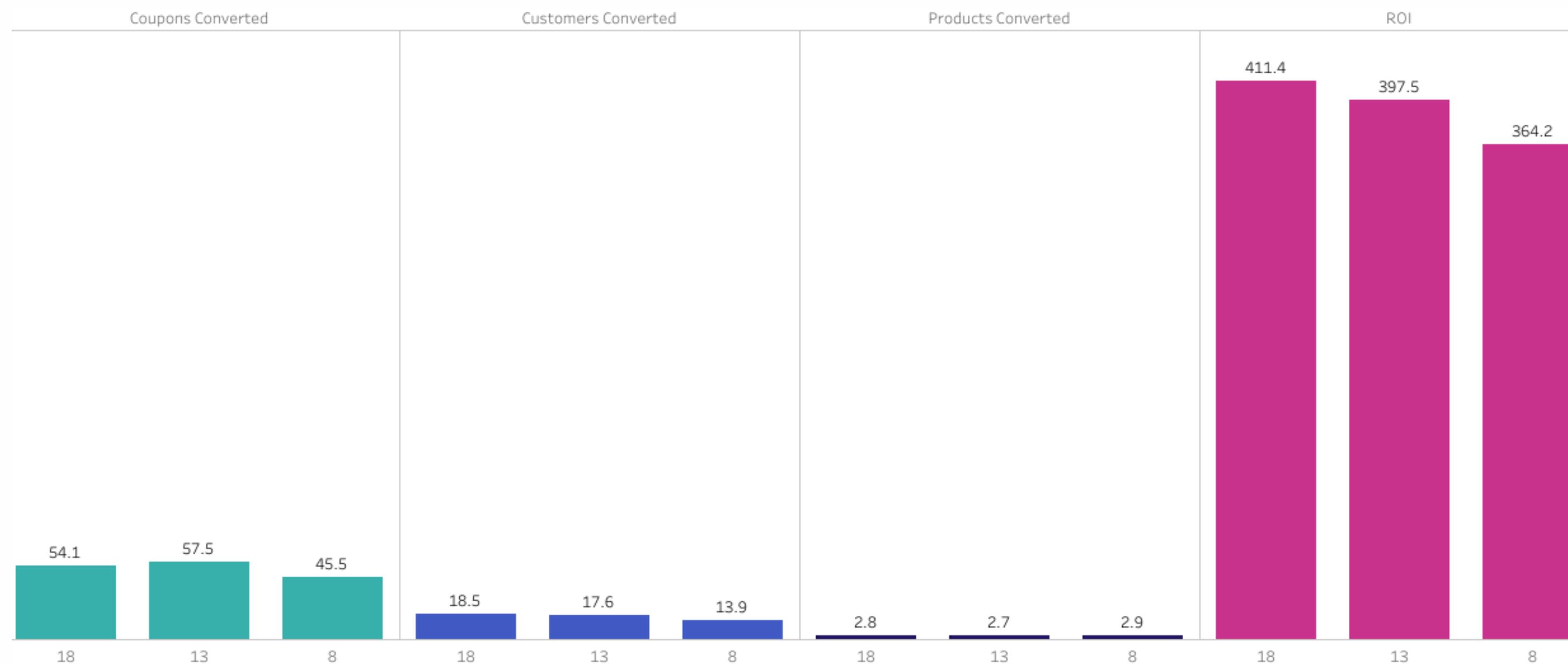
Pareto Chart of Sales Value and Campaign



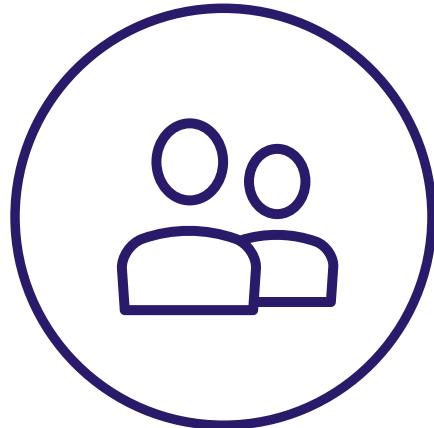
# FINDING AN EFFECTIVE CAMPAIGN - 2

From the top 3 campaigns, **Campaign 18** is the **best campaign** by 486.6% from total scoring of all metrics.

## Top 3 Campaigns Conversion Rate and ROI



## BEST CUSTOMER DEMOGRAPHIC



**Having income  
50-74k**

**24.65%**

of total known demographics

**Two adults and  
No kids**

**29.75%**

of total known demographics

**45-54 years  
old**

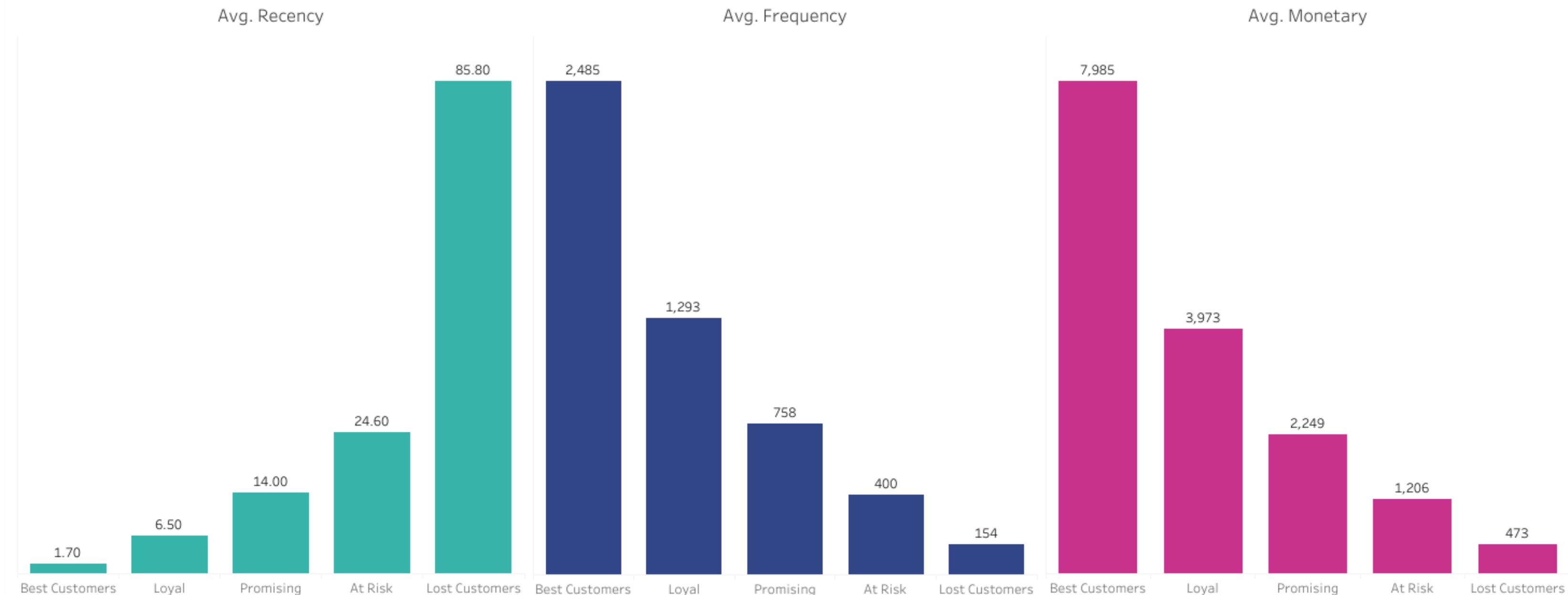
**34.45%**

of total known demographics

# CUSTOMER SEGMENTATION GROUPS

Best Customer has **lowest recency**, **highest frequency**, and **highest monetary** indicating that it consists of the biggest and the most frequent spenders.

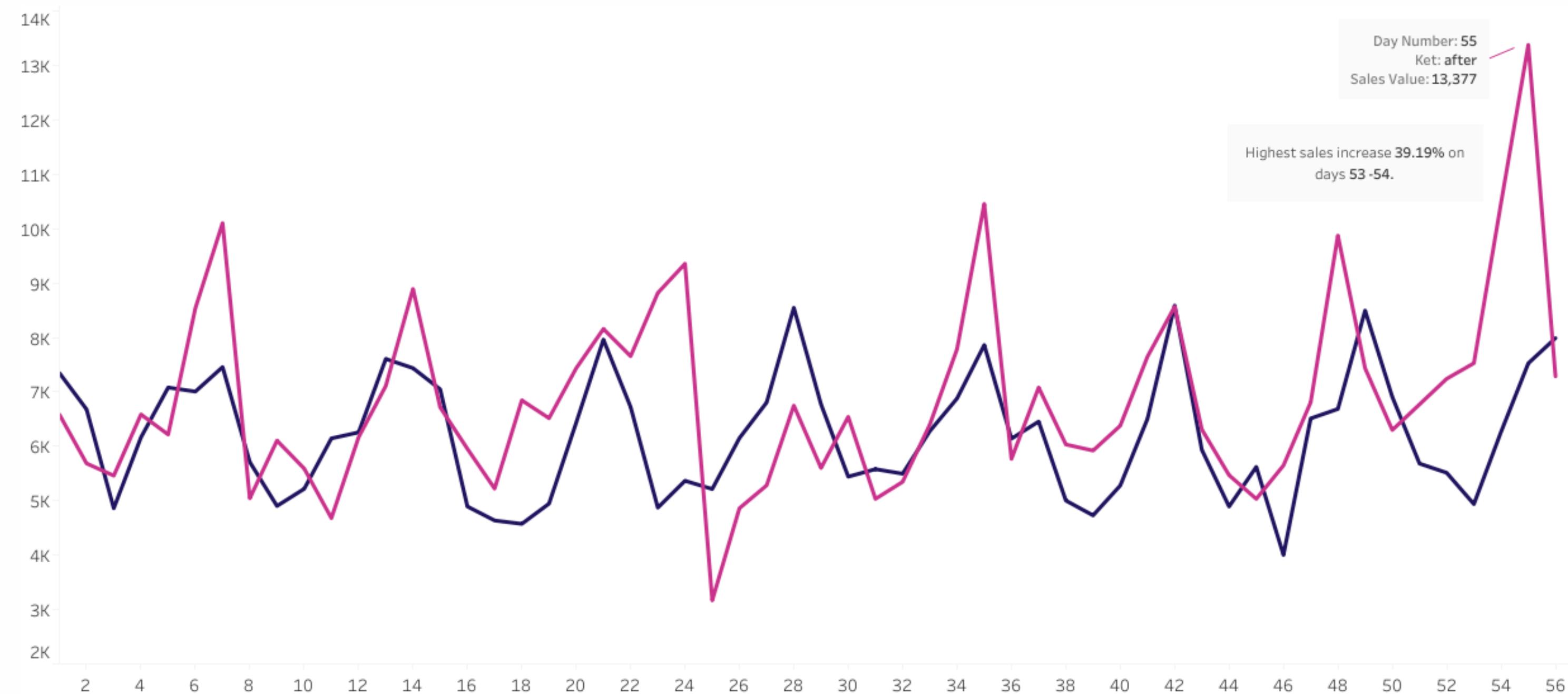
This segment is most likely will be responsive to campaigns and the easiest to retain.



# CAMPAIGN 18 IMPACT

Revenue increase by 10.8% during campaign 18 for 55 days (compound of 0.19% per day).

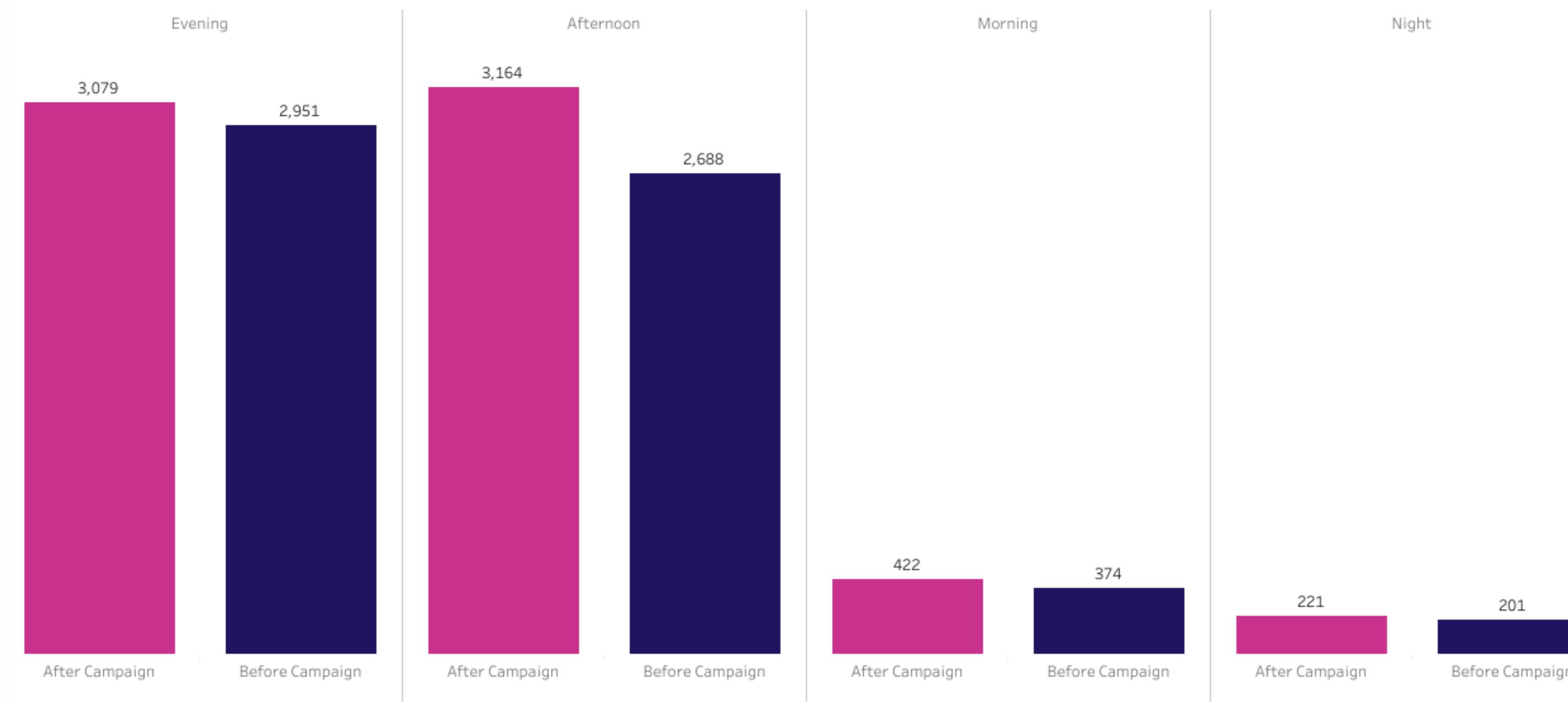
Growth Sales per Segmented Customer **Before** vs **After**



# BEST TIME CATEGORY TO RUN CAMPAIGN

The biggest growth average sales after campaign occurs in the afternoon by 17% that generates sales 46% of total sales.

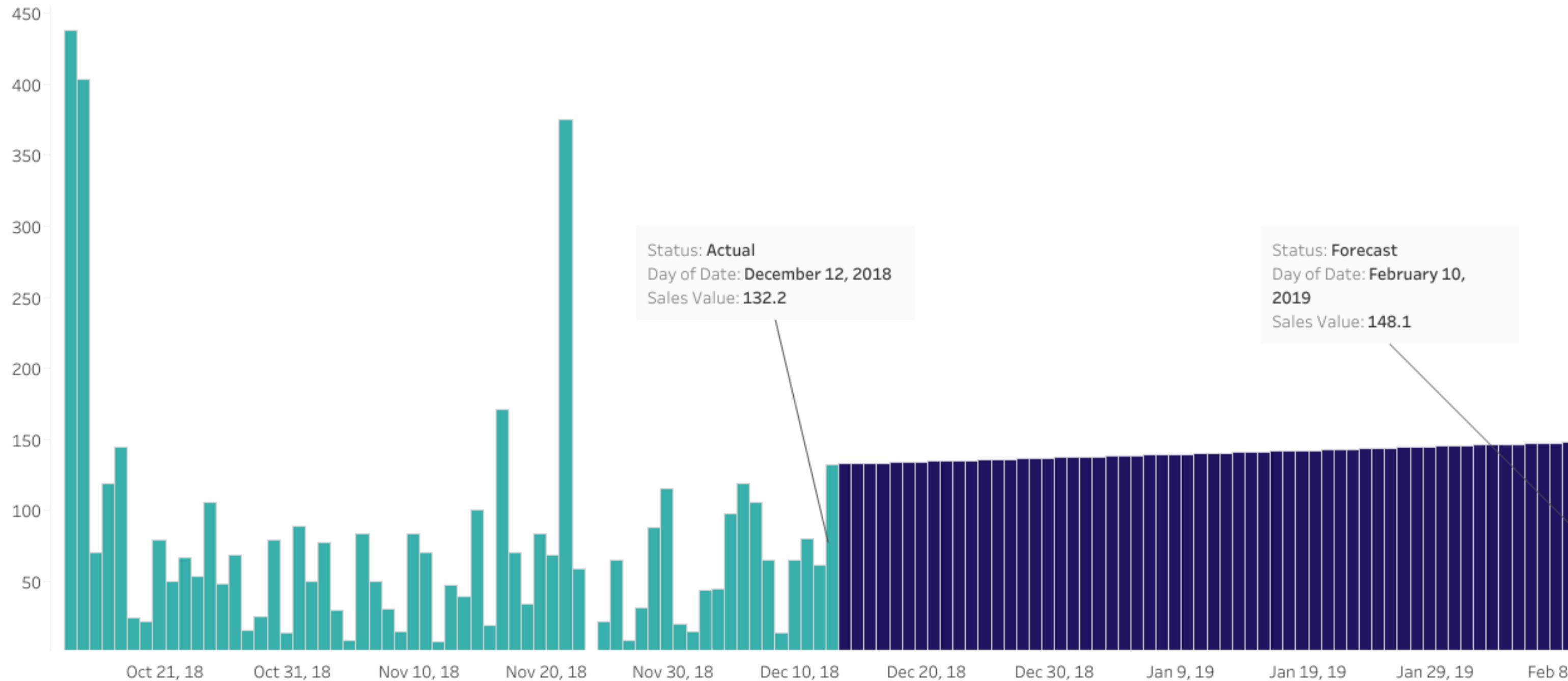
Time Category of Sales **Before** VS **After**



# | FORCAST

Data obtained for 60 days is predicted to increase **12.06%**

Forecast of 289 underperforming stores **Actual vs Forecast** ( 60 days )



## | RECOMMENDATION

- Enhancing Campaign 18 to the Best Customer segmentation group. By boosting the most efficient campaign to the right target, the average growth daily sales can be increased by 0.19%.
- Optimize the campaign 18 in the afternoon. The customers are more likely to shop in the afternoon to which it can generate sales up to 46% of total sales.