



# Universal Plus

G12 Consultancy Services Presentation

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Group 12

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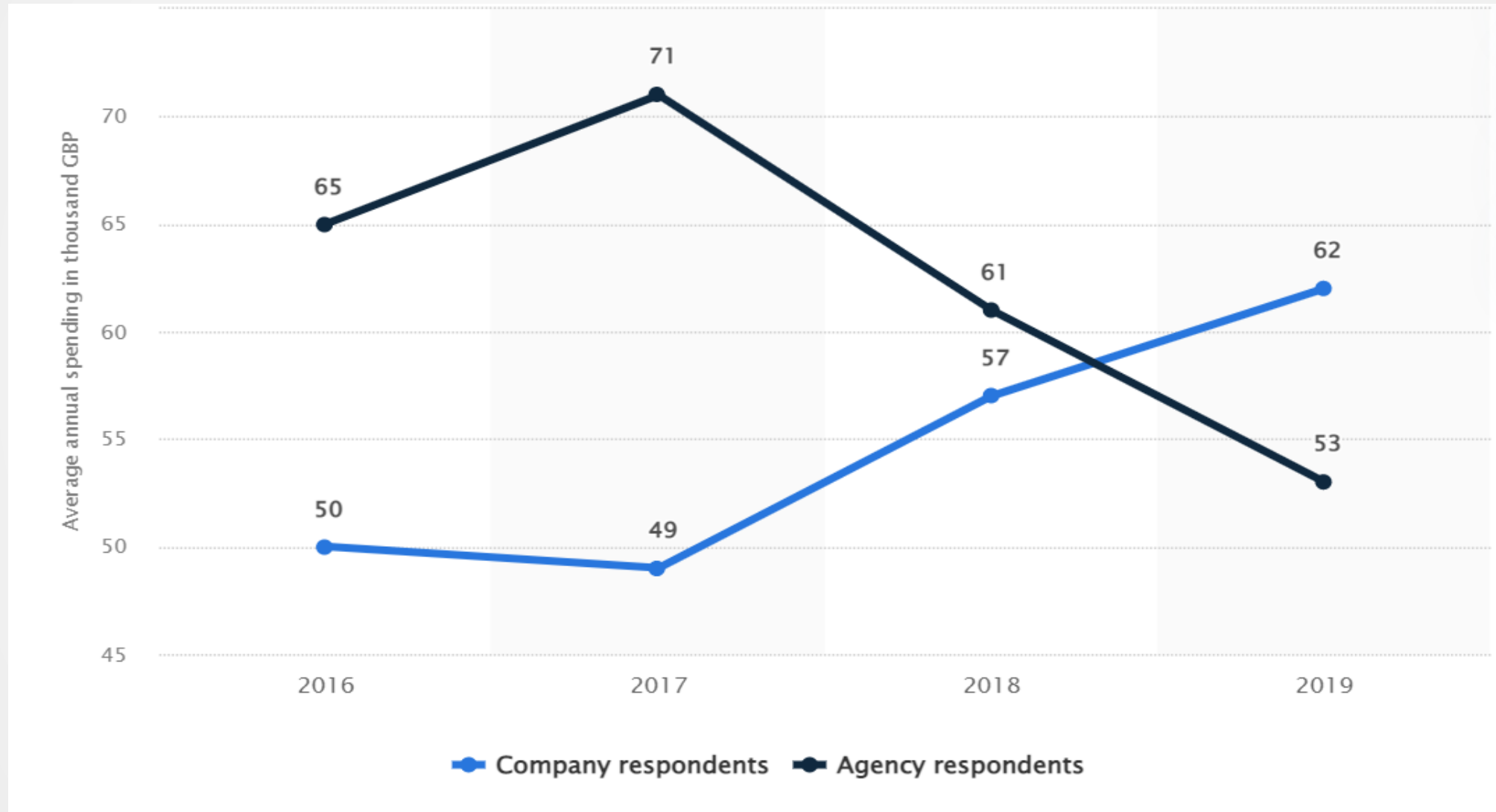
# Universal Plus

# Direct Email Marketing



# Industry Overview

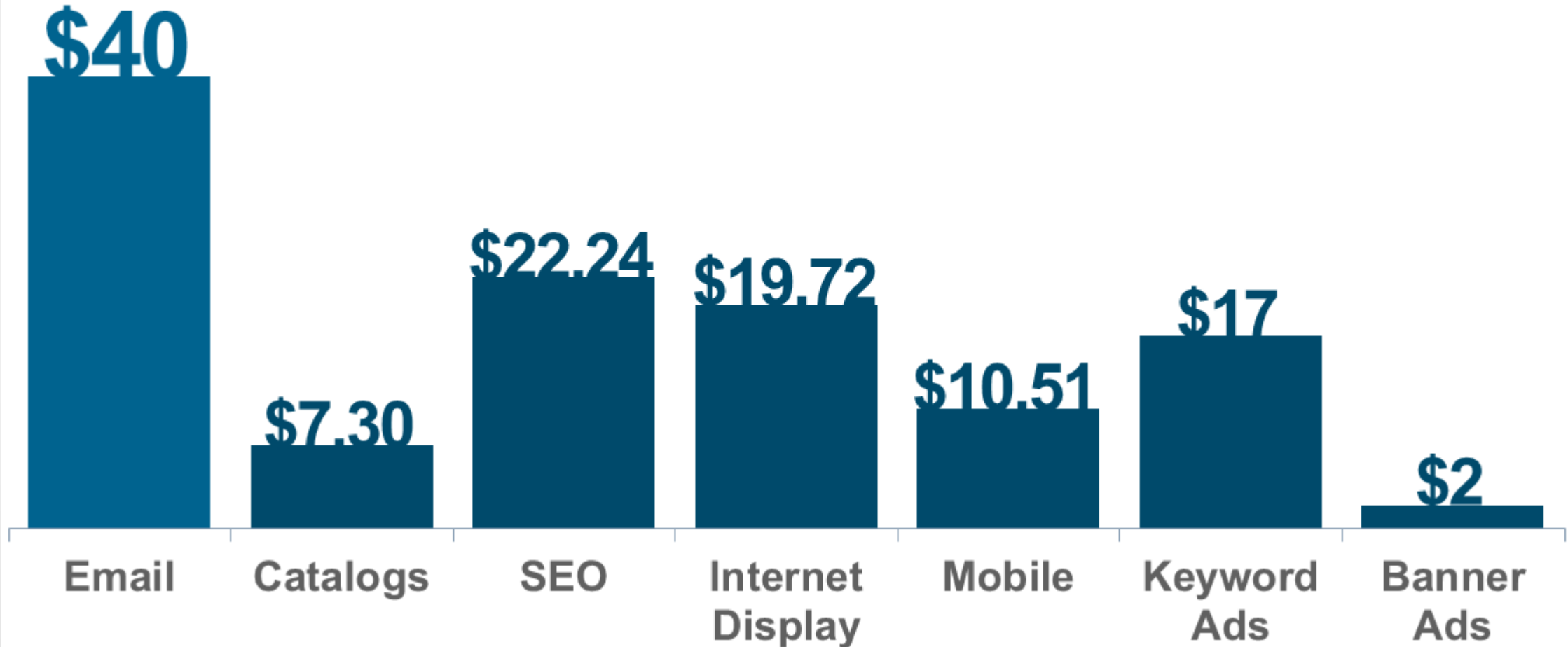
## (I) Average e-mail marketing spending at companies from 2016 to 2019



# Industry Overview

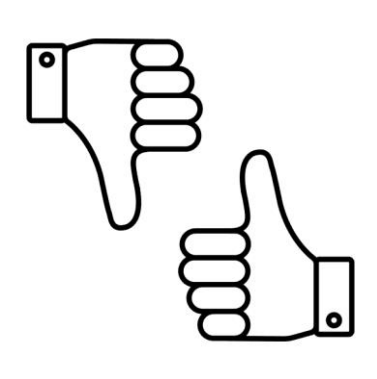
## (II) Return on Investment

ROI (per \$1 spent)



# Current Email System

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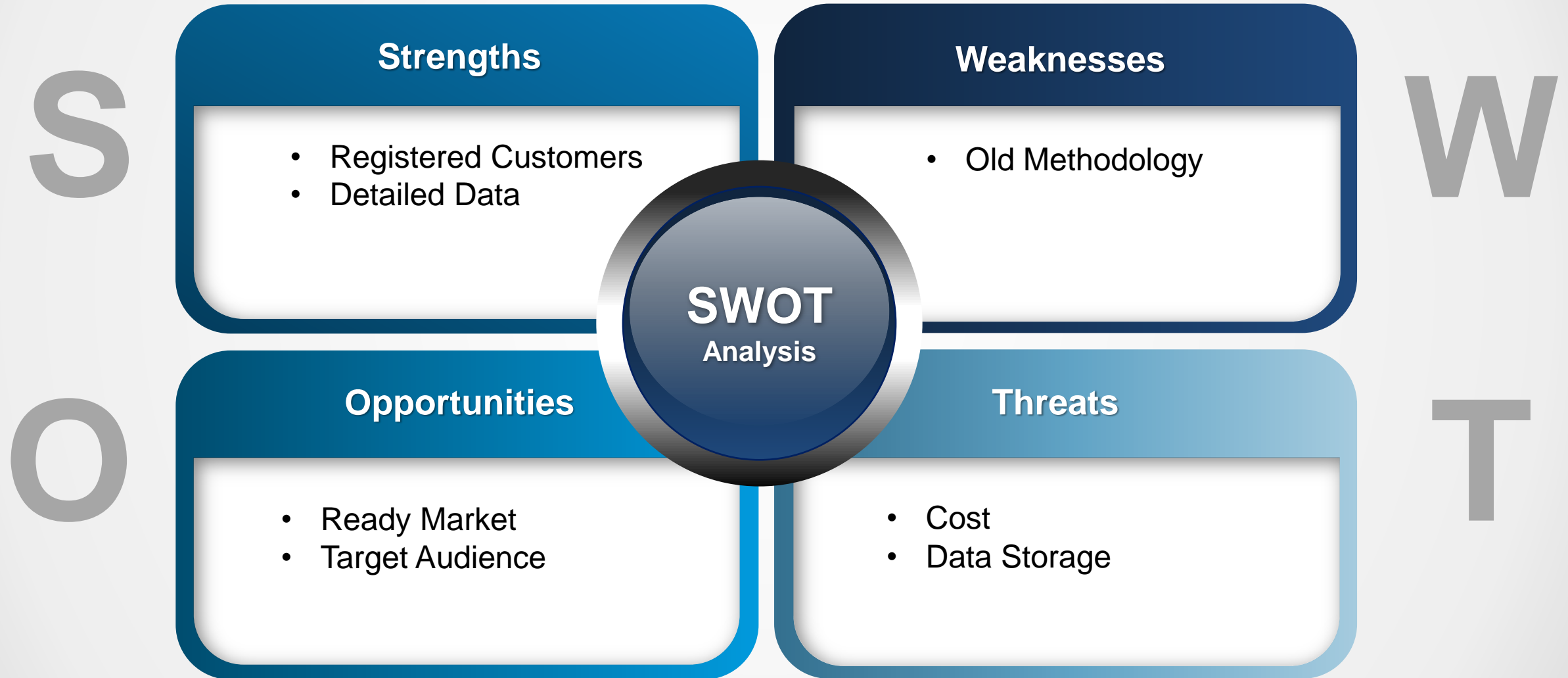
- **Rule of Thumb.** is a business valuation method that is based on common sense and experience.



- **Random Selection** It attempts to achieve an unbiased representation of the total population.

# Current Email System

## (II) SWOT Analysis





# Key Insights Before Marketing Campaign

## (I) Overall

### Recency



Most of the customers have purchased in the previous month before the campaign

### Zip Area



People in the suburban areas are more likely to visit the store

### Credit Card



Most customers have registered their card details

### Age Factor



People between the age 24-35 shop the most than compared to others.

### Customer Relationships



Customers have doubled than the previous year

### Channels



Most purchases are done using Phone and Web Services.

### Other Insights



High number of customers are employed and have registered their phone

### Merchandise Segment



Men's and Women's Merchandise segments hold almost equal value in both count and sales.

### Purchase Segments



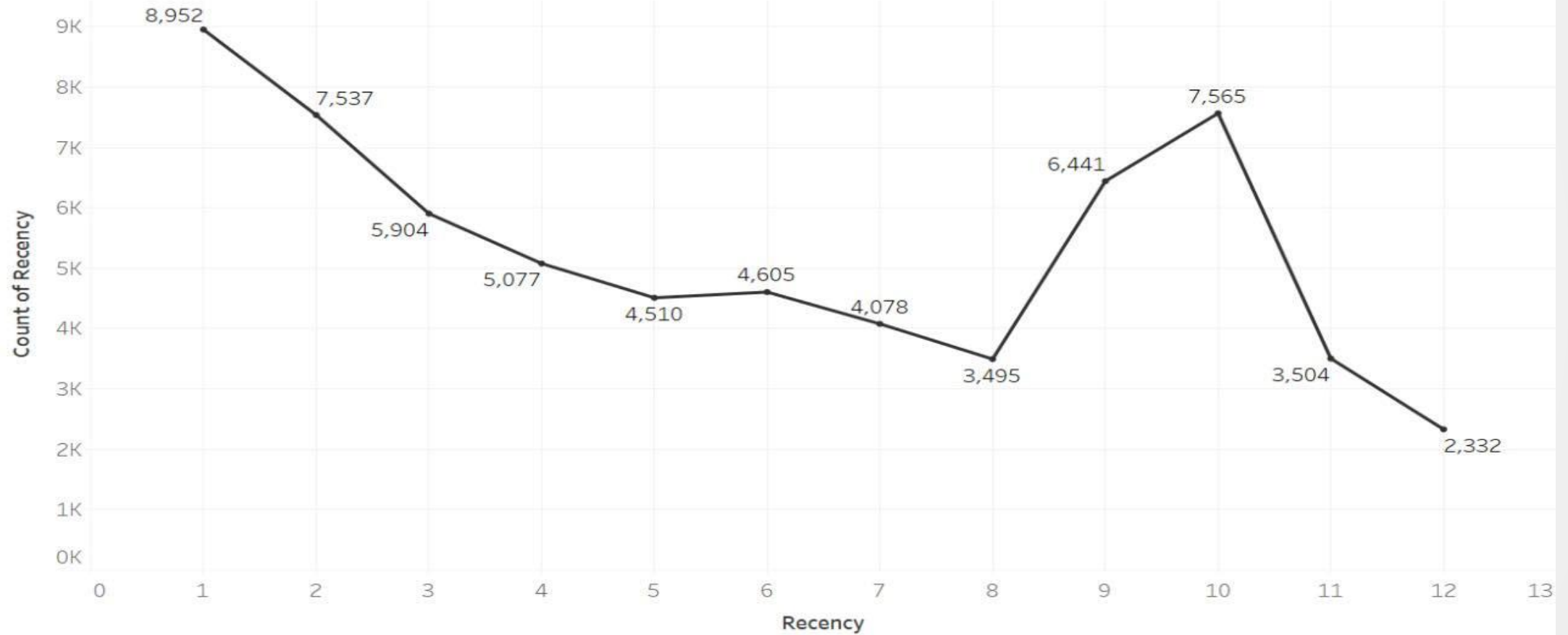
More purchases in segment 200-300 pounds, followed by 500-350 pounds segments



# Key Insights Before Marketing Campaign

## (II) By Recency

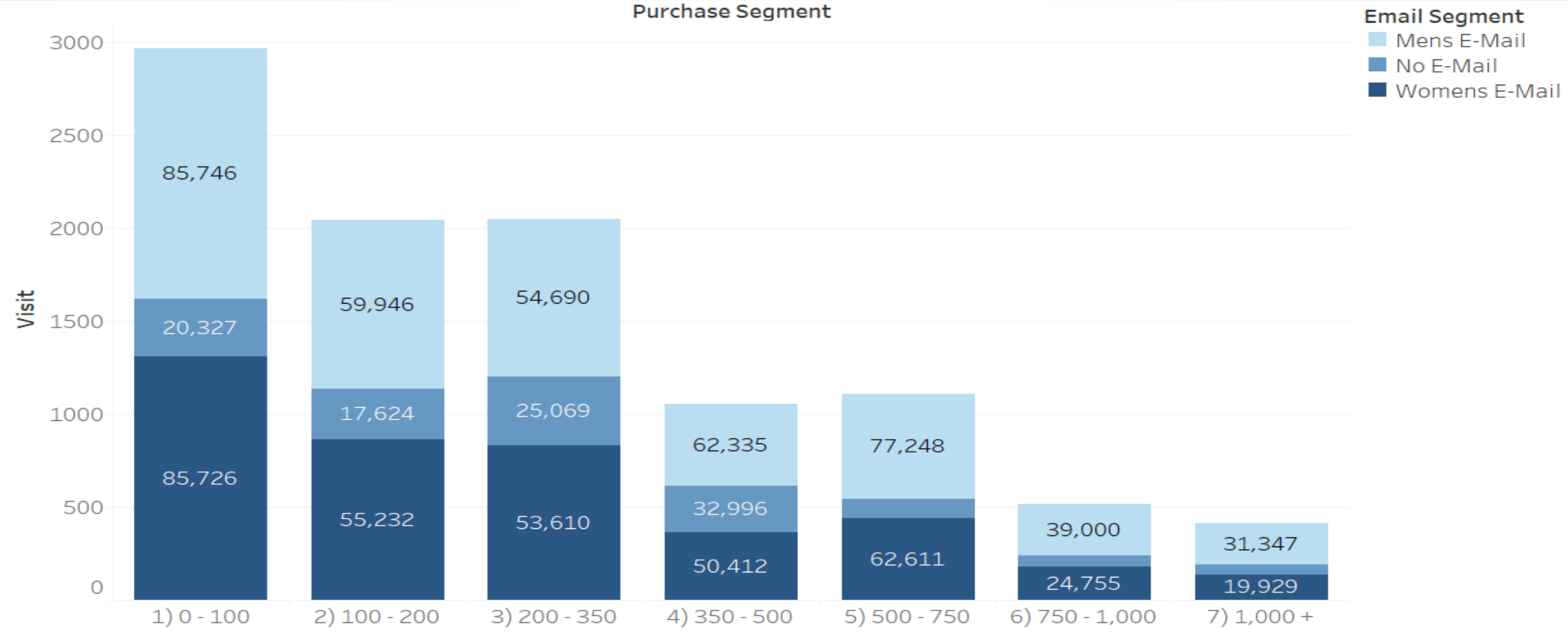
Purchases made just before a marketing campaign



- Most of the purchases are done in the previous month when compared to all other months of the year

# Key Insights Before Marketing Campaign

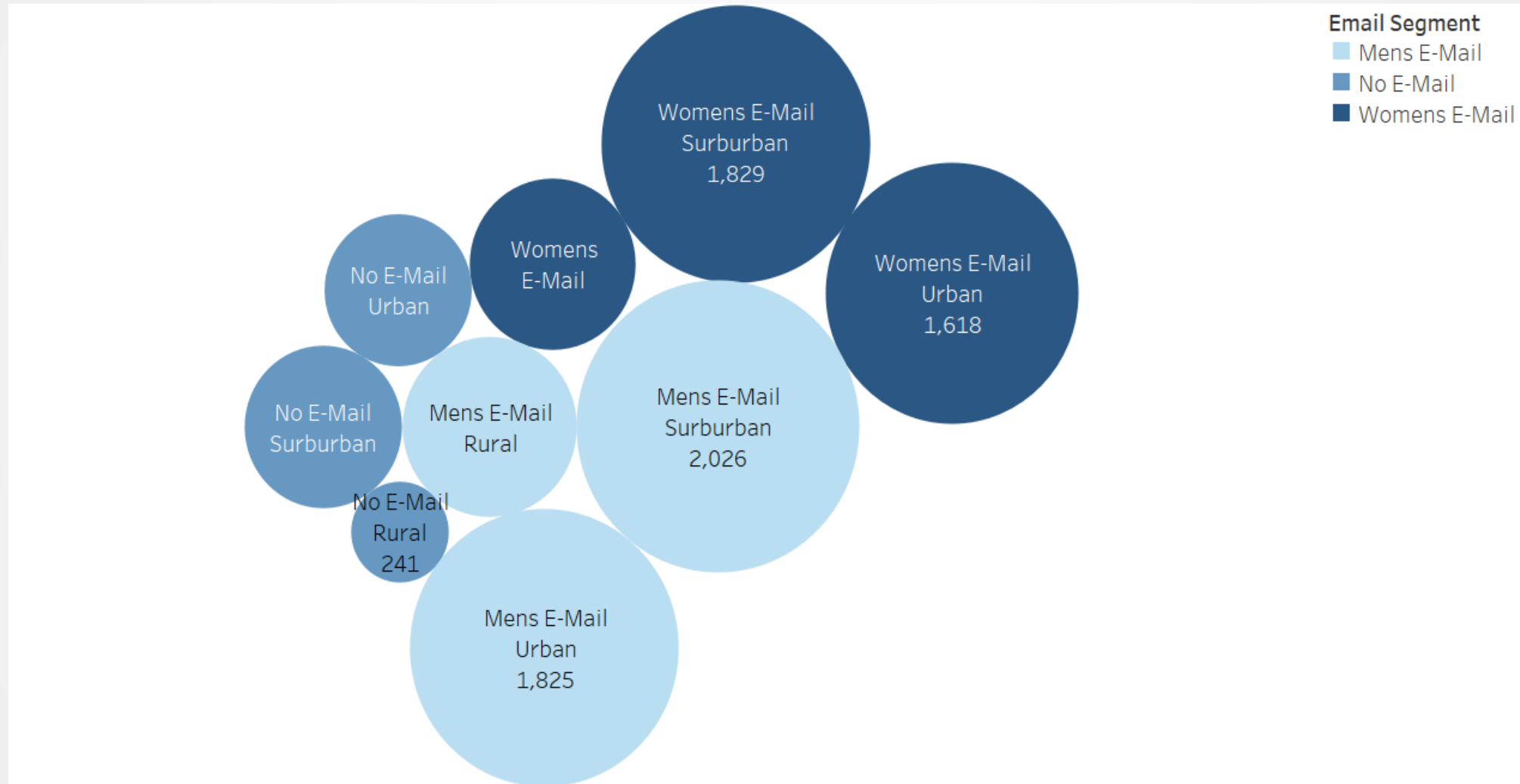
## (III) By Men vs. Women



- In the last two weeks, there have been a lot of spends and visits, and the graph shows the purchases based on email segments and emails sent in different purchase segments

# Key Insights Before Marketing Campaign

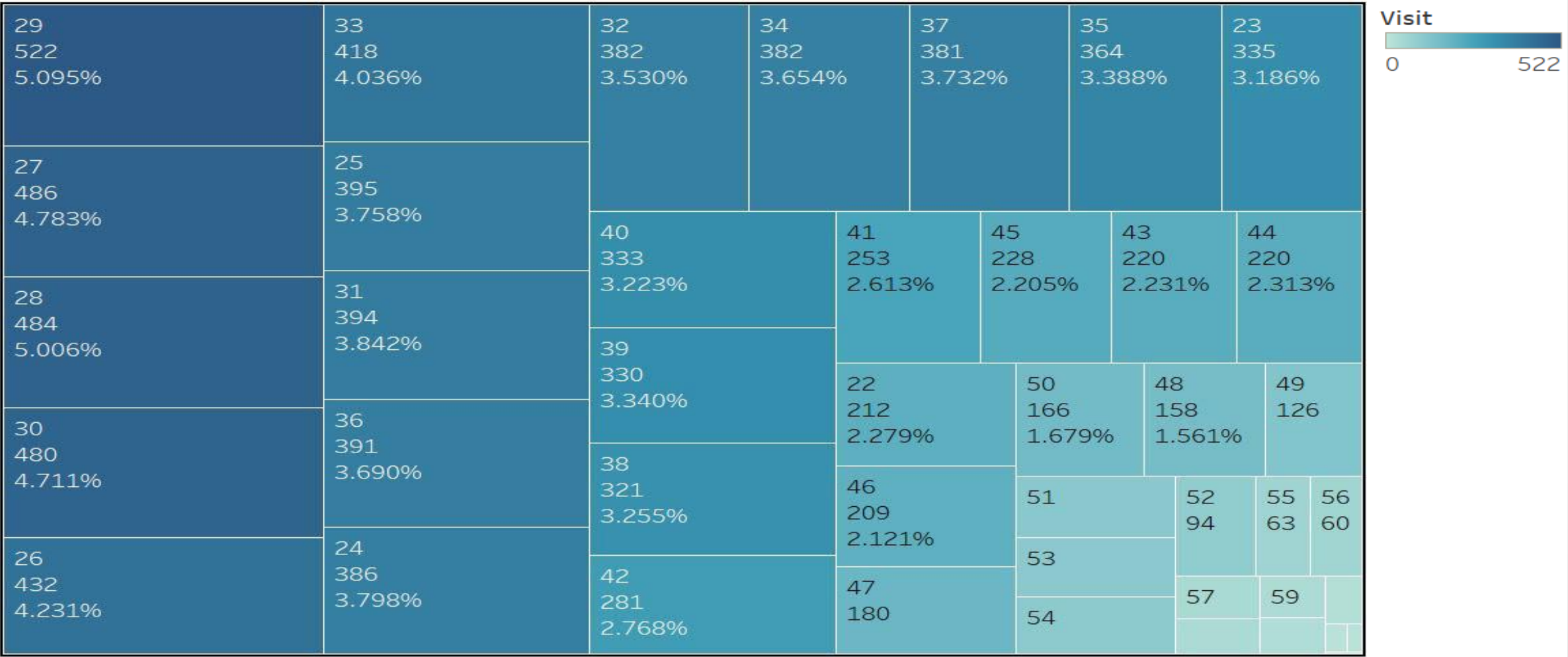
## (IV) By Area



- The graph depicts the number of visits made by men and women email segments in different areas over the last two weeks.

# Key Insights Before Marketing Campaign

## (V) By Age



- The chart shows the percentage of visits made by each age group over the course of the previous two weeks as well as how much money they spent overall

# Overview of CRISP-DM Methodology



## Business Understanding

- Business objective: Direct email campaign to target group of customers to make them visit the shop
- Save on costs, increase sales



## Data Understanding

- Understood the strengths and limitations
- Explored the data and verified its quality



## Data Preparation

- Transformed the data to be ready for modelling
- Format and clean data



## Modelling

- Selected 3 modelling techniques to predict customer visits
- Generated test design
- Assessed models to find best one



## Evaluation

- Assessed and evaluated the results in terms of business success criteria



## Deployment

- Use evaluation results to determine a strategy for deployment

# OUR MODEL – RANDOM FOREST

In simple words, Random Forest is a machine learning algorithm which learns to map data (e.g. temperature today) to outputs (temperature tomorrow) by learns any relationships between the data. Advantages include:



## Ease of understanding

It produces good predictions that can be understood easily.



## Large Datasets

It can handle large datasets efficiently



## Higher accuracy

The algorithm provides a higher level of accuracy in predicting target customers who will visit the shop compared to other models

Model Name	Precision	Recall	Accuracy
Random Forest	86.24%	40.86%	89.56%

# SAVING YOUR MONEY

## CURRENT EMAILS

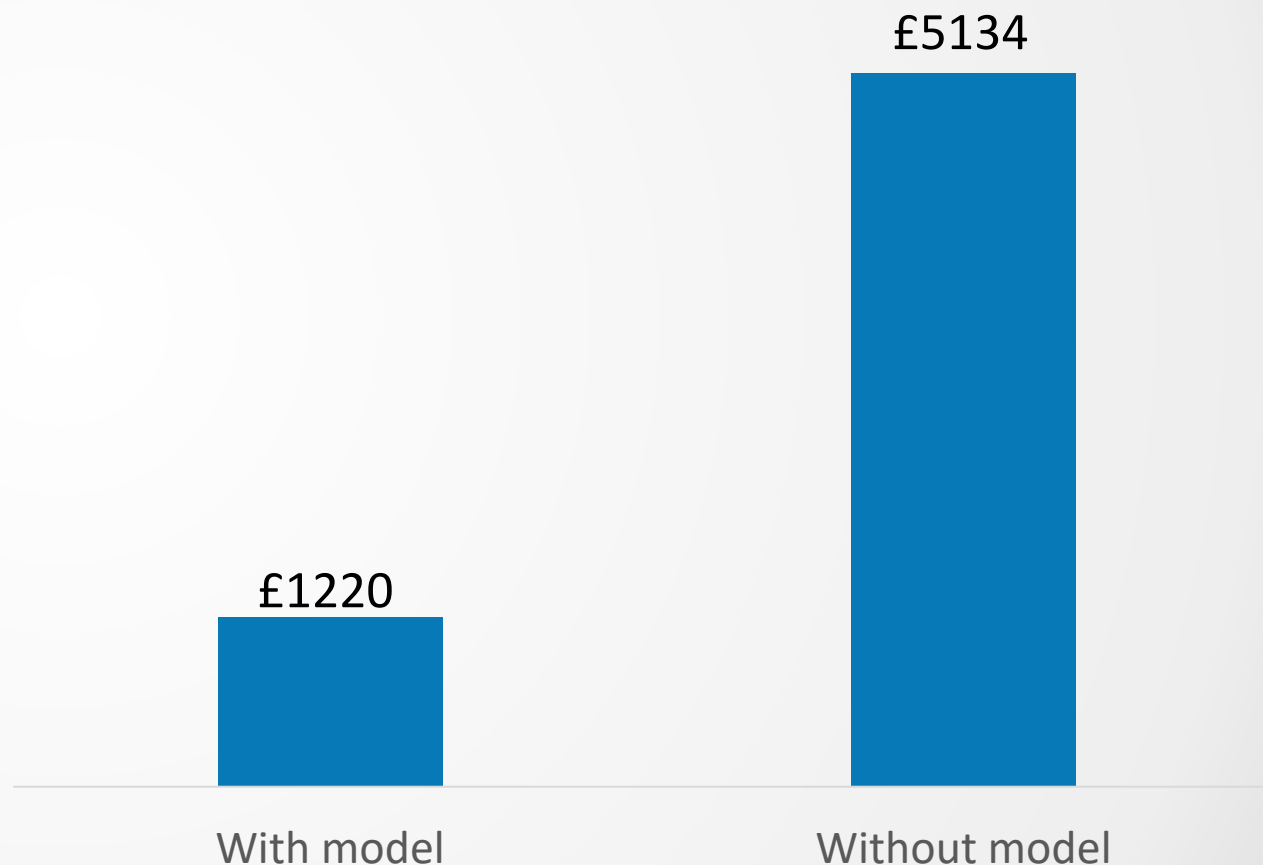
- Average Cost of one email: £0.12
- Total cost:  $0.12 * 42782 = \text{£}5134$

## GOAL WITH OUR MODEL

- Precision of our model: 86.24%
- Emails to be sent to achieve same number of visits:  $8764 / 0.8624 = 10,162$
- Total cost =  $0.12 * 10162 = \text{£}1220$

**SAVINGS =** 

## Email Marketing Costs





# WHY US?

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## What Universal Plus Need

### Direct email marketing system

- Identify which customers to target to visit the shops
- Decrease costs, and increase sales

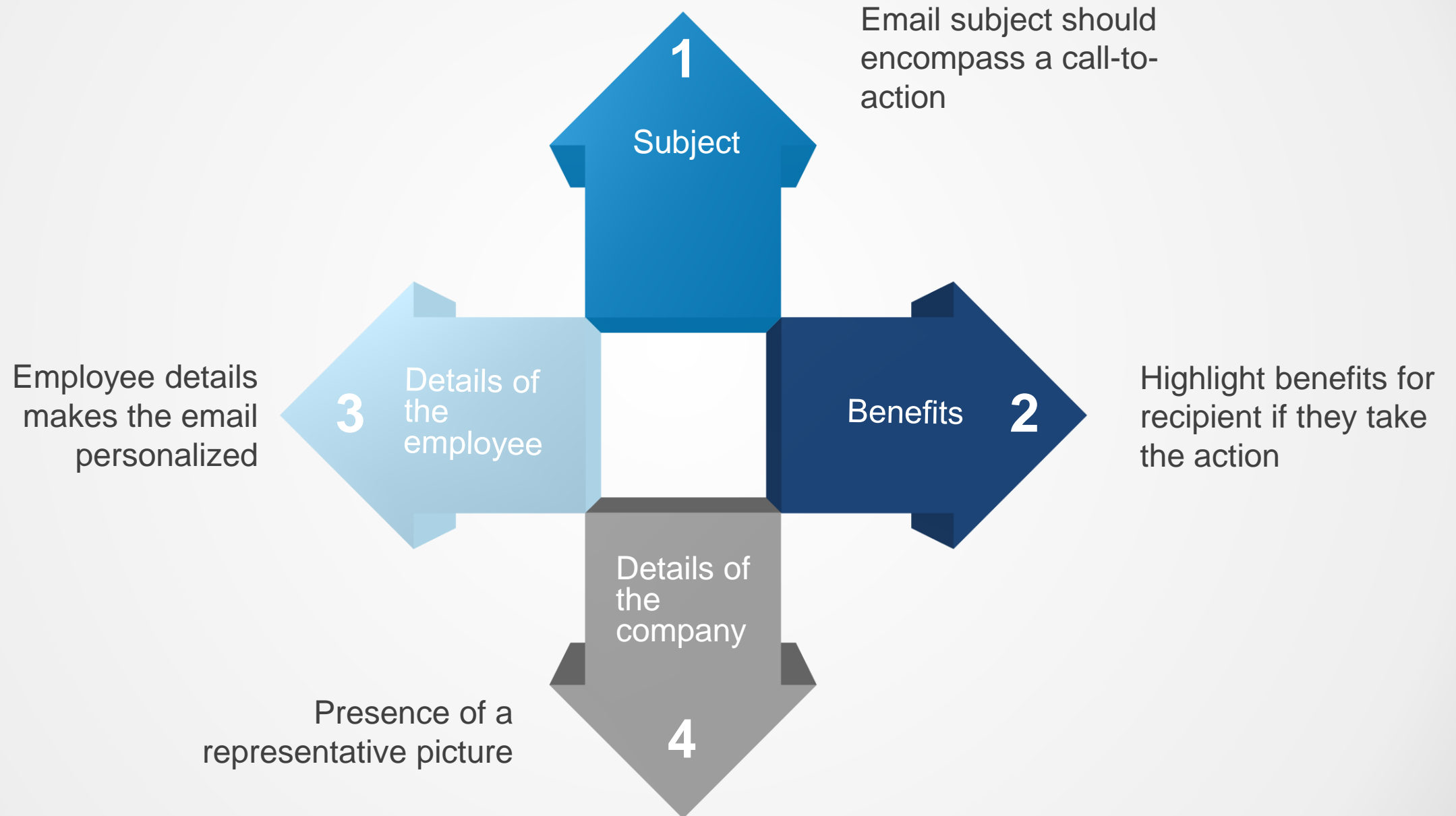
## What We Can Do

### Build a complete project

- Create a tailor-made system
- Target right customers: Predict customers with our model of 89.56% accuracy
- Model leading to huge decrease in costs
- Analysis of data and providing managerial insights
- Show concrete and transparent results
- Ongoing monitoring post deployment of system
- Improve model consistently to drive profitability

# Suggestions for email templates

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# Other Factors

## 5 Key Factors For Email Marketing Strategy Success.

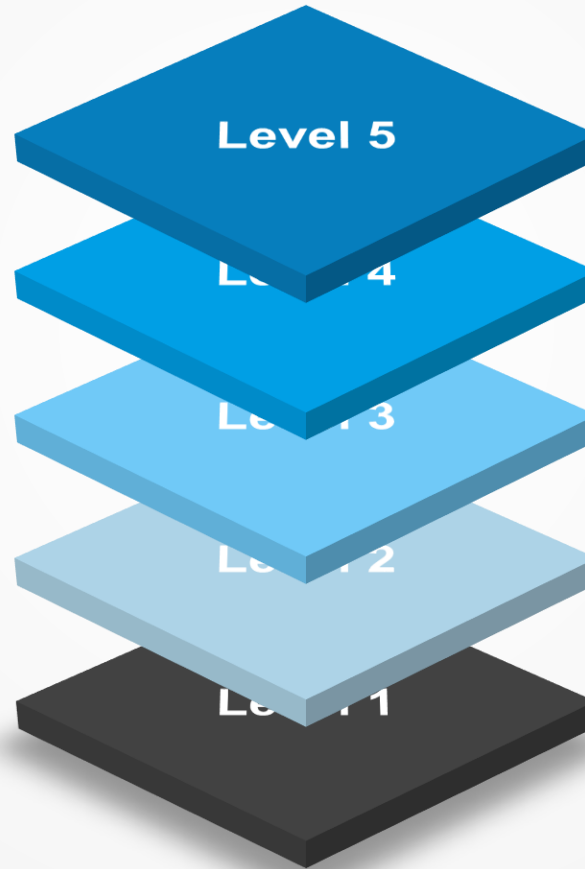
Open rates and Click  
Through Rates



Valuable Content



Email retargeting



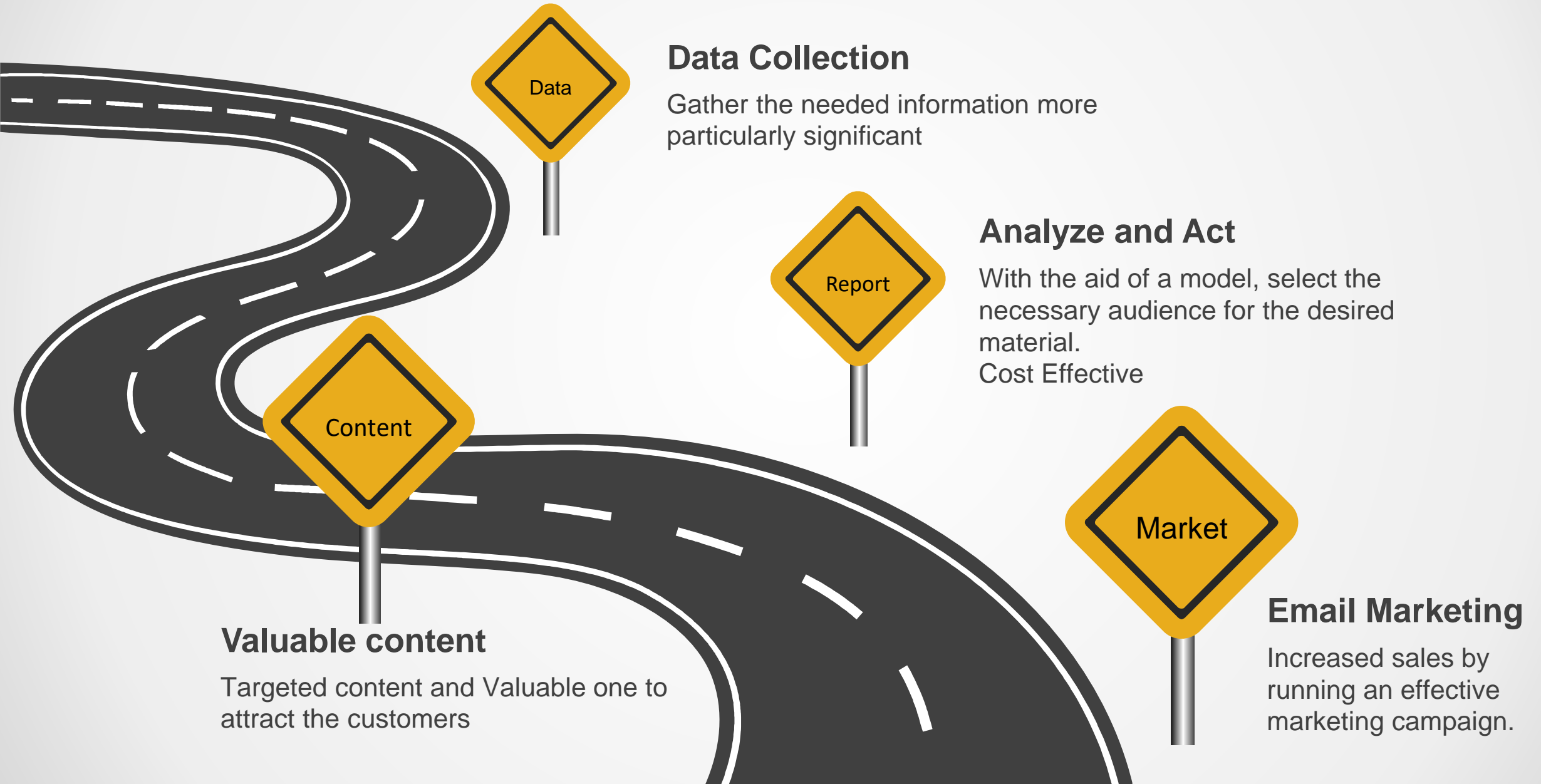
A/B Testing



Campaign Timing

# Roadmap

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THANK YOU!