

# ***Multidimensional Scaling Maps***

***Multivariate Solutions***

# *Multidimensional scaling (MDS)*

- Multidimensional scaling (MDS) is a set of data analysis techniques that display the structure of distance-like data as a geometrical picture or map.
- In marketing, MDS is a statistical technique for taking the preferences and perceptions of respondents and representing them on a visual grid.
  - Potential customers are asked to compare pairs of products, rate them, or make judgments about their similarity.
  - The maps are calculated using Euclidean distance measurements.
  - Input data can be ratings, similarities, groupings of various brands, or observation of which products potential customers tend to purchase together in a virtual store or mystery shopping scenario.
- An MDS Map can help determine:
  - What products and services do customers tend to purchase together.
  - Which brands do they tend to lump into the same category.
  - Which attributes' importance or performance tend to be connected.

# Multidimensional Scaling Maps

## Cleaning Brands Categories

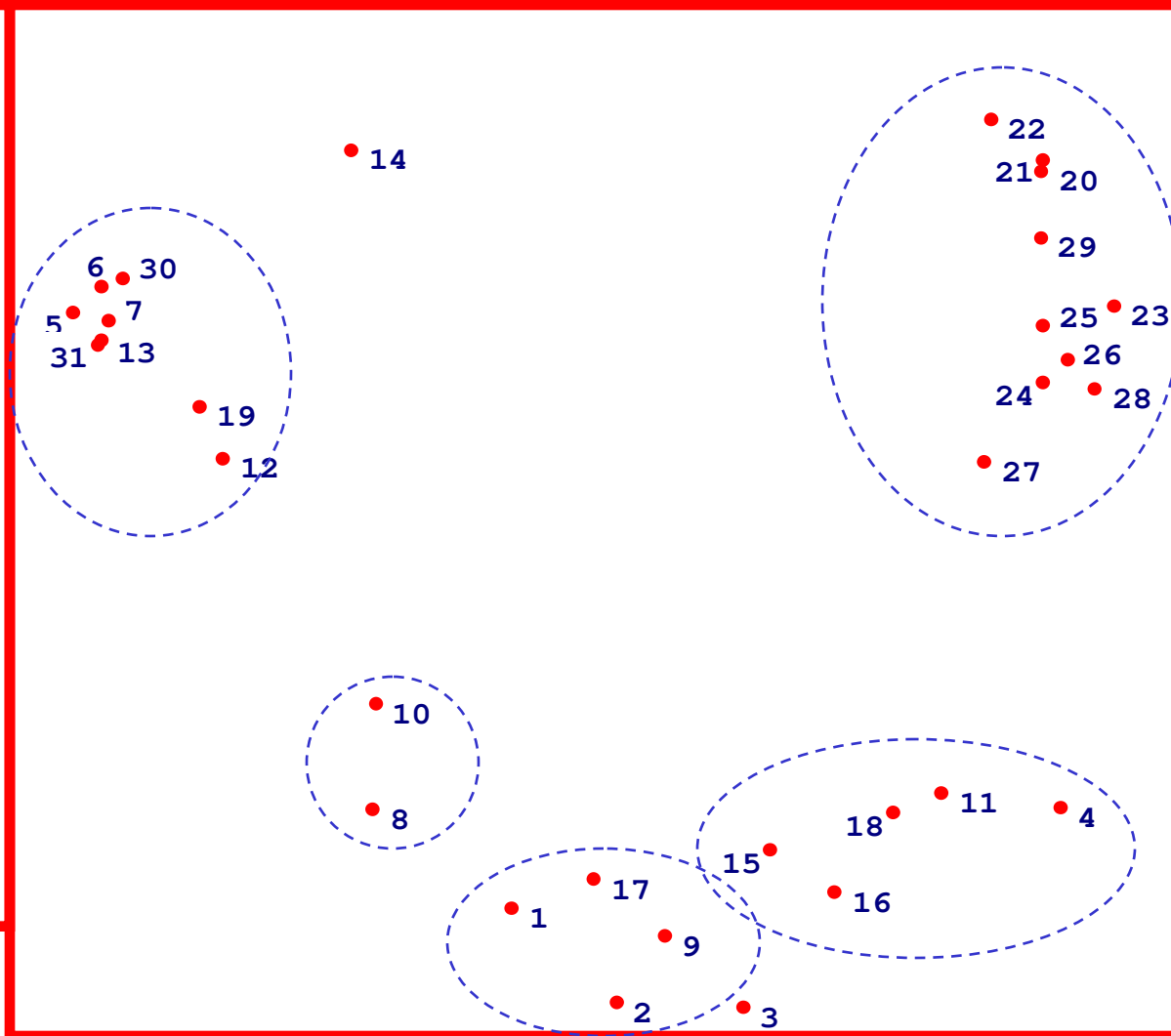
- **Objective**
  - How do consumers perceive how household cleanser categories is organized.
- **Data Collection**
  - Respondent is given a set of cards, each with a different household cleanser SKU and is asked to sort them into groups.
- **Key Learning**
  - Consumers tend to organize cleaning products by type rather than by brand.

# Multidimensional Scaling Maps

## Cleaning Brands Categories

### Attributes

- 1 Beautee Soap
- 2 Blue Moon Shampoo
- 3 Bronzoluxe Creme
- 4 Crelm Toothpaste
- 5 Dapper Dan Pomade
- 6 Dazzledent
- 7 Dead Cat Soap
- 8 Demoxonil
- 9 Denham's Dentifrice
- 10 Dibbler's Homeopathic Shampoo
- 11 Dr. Flimflam's Miracle Cream
- 12 Foggy Mountain Soap
- 13 Lather, Rinse, Obey
- 14 Lover Soap
- 15 The Lung Brush
- 16 Mere and Stingbat's Herbal Wash



### Attributes

- 17 Miracle Salve
- 18 Ocean Breeze Soap
- 19 Palmoral (sun block)
- 20 Pubic Pride
- 21 Robo Fresh
- 22 Rinse 'n' Run Scalp Tonic
- 23 Short 'n' Curlies
- 24 Sonky's Preventatives
- 25 Spurt Toothpaste
- 26 Soul Glow
- 27 Woomba, the little robot that cleans your lady parts
- 28 Wuvs Diapers, a Parody of Luvs diapers.
- 29 Cherokee Hair Tampons
- 30 Wallace Flowright
- 31 Wuzrite Washing Soap

# Multidimensional Scaling Maps

## Virtual Online Supermarket

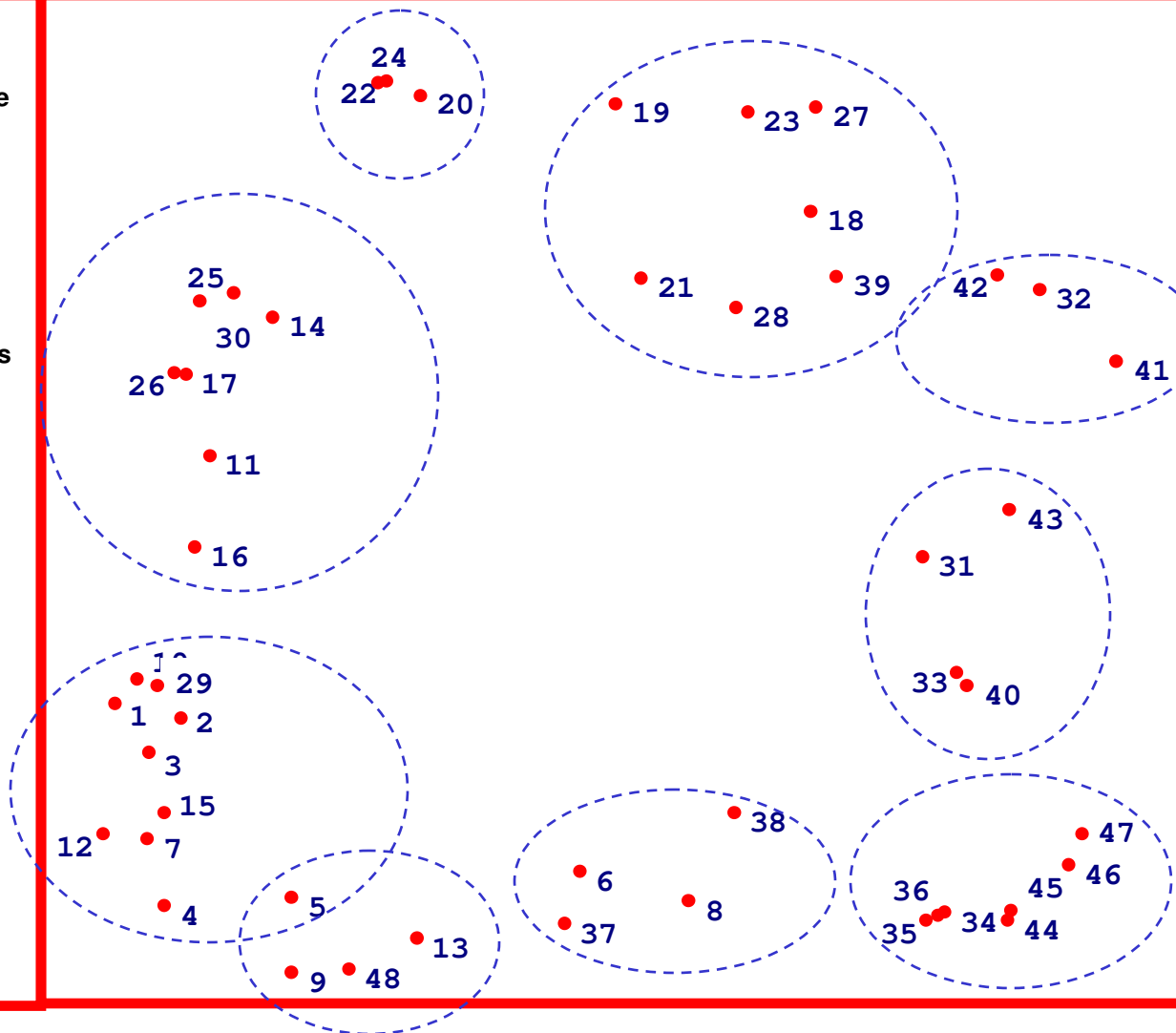
- **Objective**
  - When consumers go online to shop, which products do they tend to purchase together?
- **Data Collection**
  - Respondent enters an online virtual supermarket. His choices are recorded.
- **Key Learning**
  - The consumer online panel suggests a more efficient way to organize the online supermarket.

# Multidimensional Scaling Maps

## Virtual Online Supermarket

### Attributes

- 1 White Bread
- 2 Pumpernickel & Rye
- 3 Whole Wheat & Multigrain
- 4 Sourdough
- 5 Fruit & Specialty
- 6 Baguettes
- 7 Rolls
- 8 Bagels & Croissants
- 9 Artichokes
- 10 Asparagus
- 11 Avocados
- 12 Beans & Peas
- 13 Broccoli & Cauliflower
- 14 Cabbage
- 15 Carrots
- 16 Celery
- 17 Corn
- 18 Cucumbers
- 19 Eggplant
- 20 Fresh Herbs
- 21 Leafy Greens
- 22 Lettuce
- 23 Mushrooms
- 24 Onions & Garlic



### Attributes

- 25 Peppers
- 26 Potatoes
- 27 Root Vegetables
- 28 Specialty Vegetables
- 29 Sprouts
- 30 Squash & Zucchini
- 31 Tomatoes
- 32 Fish Fillets
- 33 Salmon
- 34 Shrimp
- 35 Lobster
- 36 Crab
- 37 Scallops
- 38 Clams, Mussels, & Oysters
- 39 Chicken
- 40 Beef
- 41 Veal
- 42 Lamb
- 43 Pork
- 44 Ground
- 45 Cubes & Strips
- 46 Turkey
- 47 Duck & Game Birds
- 48 Sausage

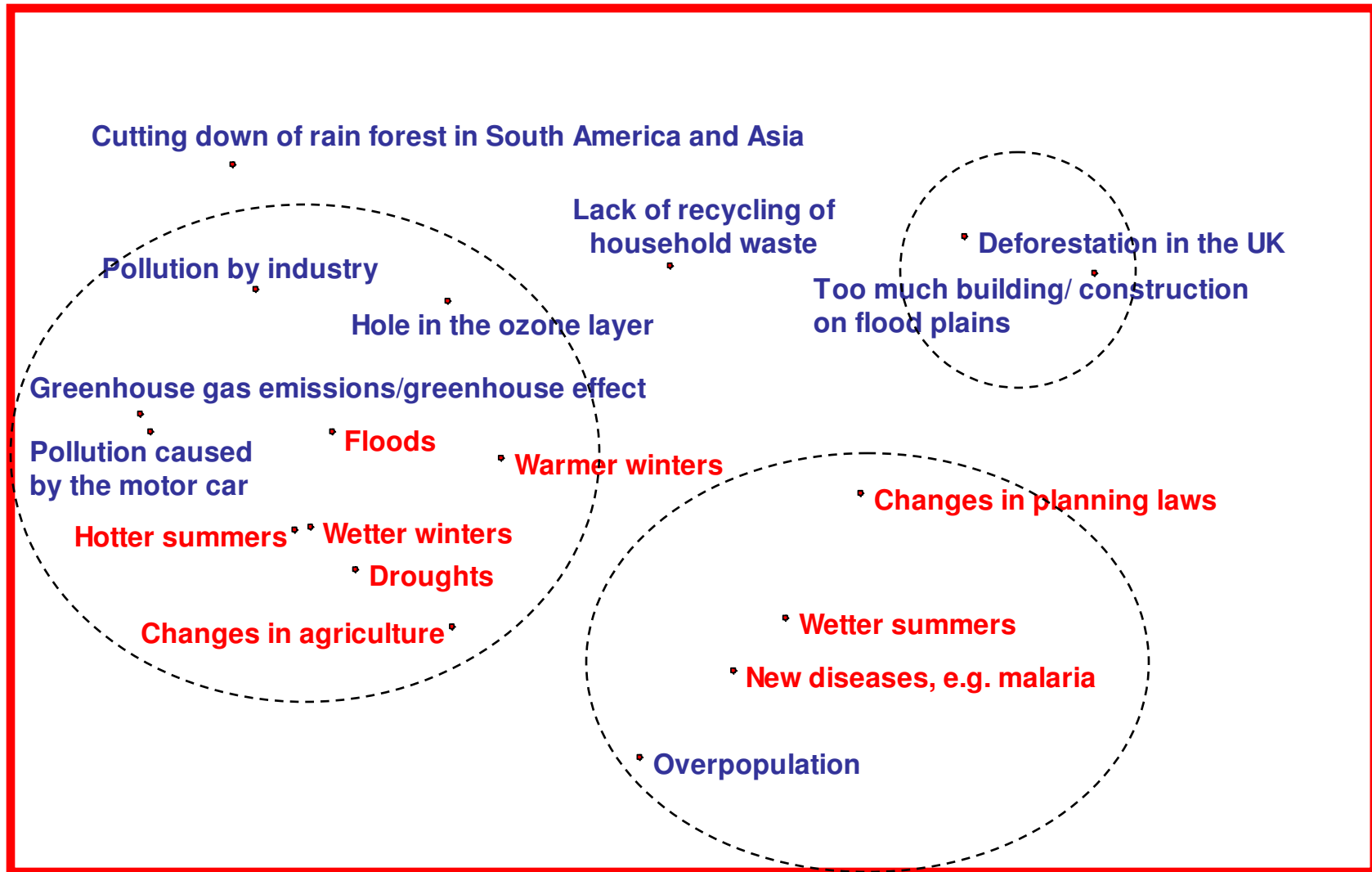
# Multidimensional Scaling Maps

## Virtual Online Supermarket

- **Objective**
  - What do Europeans see as the cause and affects of climate change in the UK and on the continent.
- **Data Collection**
  - Respondents are given a telephone interview and indicate which causes and affects Europeans believe are happening due to global warming.
- **Key Learning**
  - The MDS map indicated the proximity of causes and effects that Europeans believe is the cause of weather change on the continent.

# Multidimensional Scaling

## Main Causes/Main Effects of Weather Changes



Blue Labels=Main Causes of Climate Change

Red Labels=Main Affects of Climate Changes