



# Enginius Positioning Analysis

---

Dhruv Shah, ASU

Copyright (c) 2025, DecisionPro Inc.

# Table of Contents

---

**Positioning options**

- [Options selected](#)
- [Data description](#)

**Dimensions**

- [Number of dimensions retained](#)
- [Variance explained](#)
- [Cumulative variance explained](#)

**3D visualization**

**Objects**

- [Interpretation](#)
- [Dimensions I-II](#)
- [Dimensions I-III](#)
- [Dimensions II-III](#)
- [Coordinates](#)

**Attributes**

- [Interpretation](#)
- [Dimensions I-II](#)
- [Dimensions I-III](#)
- [Dimensions II-III](#)
- [Coordinates](#)
- [Summary](#)

**Preferences**

- [Dimensions I-II](#)
- [Dimensions I-III](#)
- [Dimensions II-III](#)
- [Preference data](#)

**Market shares**

- [Introduction](#)
- [Dimension I-II](#)
- [Dimension I-III](#)
- [Dimension II-III](#)

**Perceptual data**

- [Perceptual data](#)

# Positioning options

---

**Options selected**

Option	Selection
Include preferences	Yes
Number of dimensions	3
Focal brand	None
Show segments of preferences	No
Number of segments	Automatic
Decision rule	First-Choice

Current market shares	No
Date and time	2025-02-25 22:36:47 UTC

Options selected.

Data description

Data	Number of Rows	Number of columns	Column names
1 Perceptual data	5	5	How does Different brand compare to competitors on key attributes?, Bath and Body Works, Victoria s Secret, The Body Shop, Lush
2 Preference data	5	5	How does Different brand compare to competitors on key attributes?, Bath and Body Works, Victoria s Secret, The Body Shop, Lush

Data description.

# Dimensions

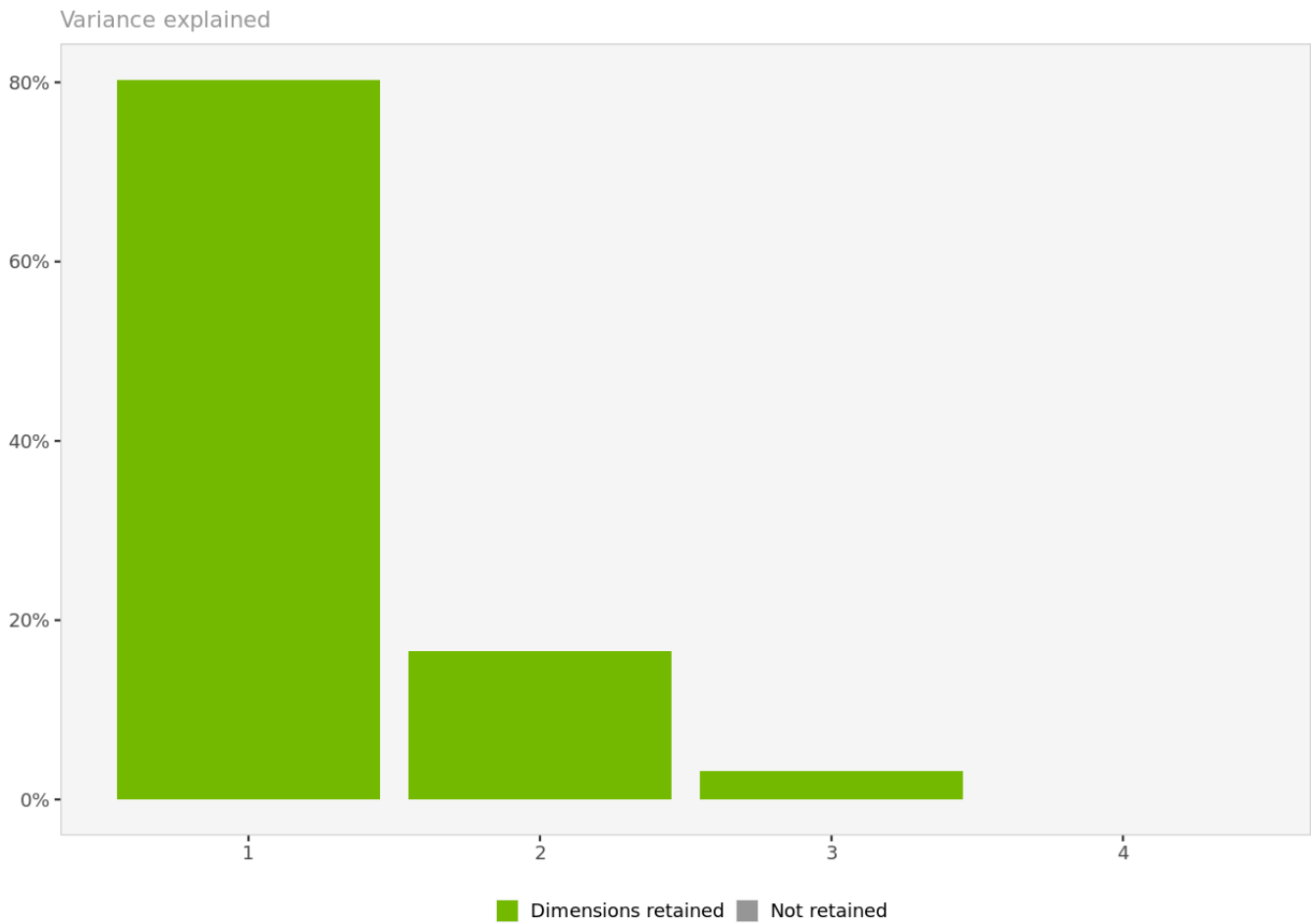
## Number of dimensions retained

You have decided to display the first 3 dimensions, which account for a total of 100.0% of the variance in the data.

	Variance explained	Cumulative variance
Dimension 1	80.3%	80.3%
Dimension 2	16.6%	96.9%
Dimension 3	3.1%	100.0%
Dimension 4	0.0%	100.0%

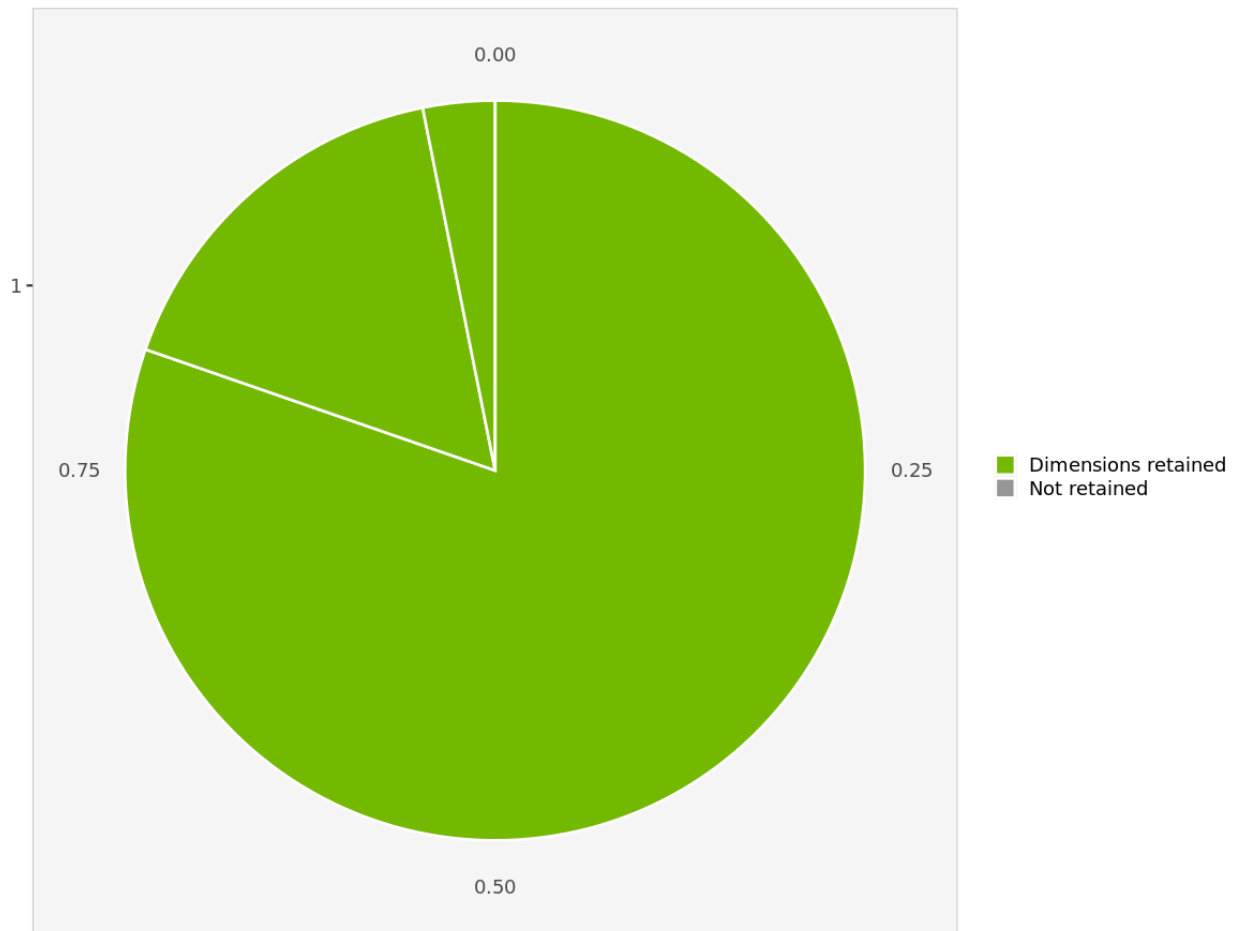
Variance explained. Variance and cumulated variance explained, by dimension.

## Variance explained



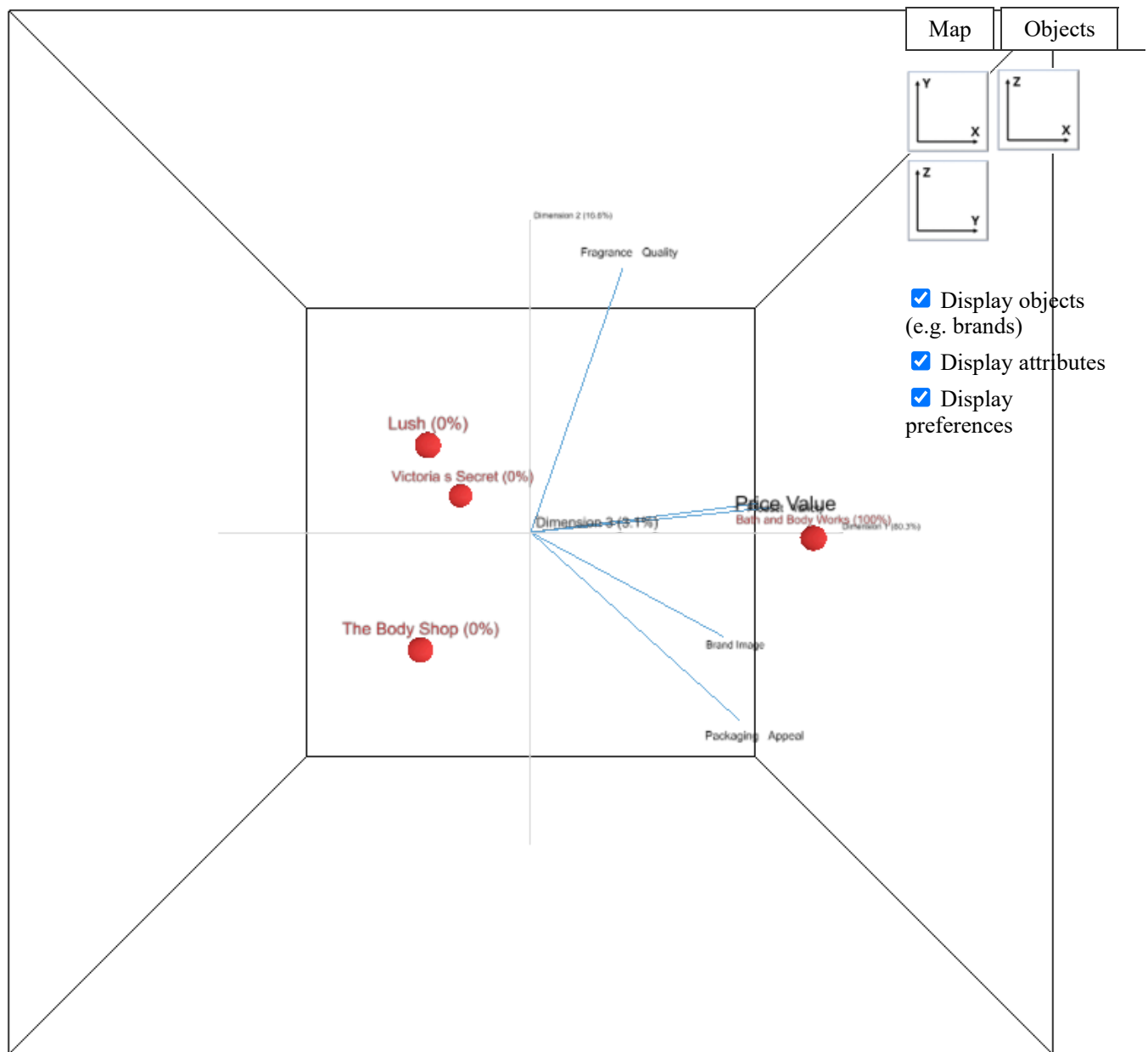
Variance explained. Each additional dimension captures a decreasing portion of the variance found in the original data.

## Cumulative variance explained



**Cumulative variance explained.** The first 3 dimensions account for 100.0 % of the variance in the data.

## 3D visualization



**Visualization in 3D of the perceptual map.** To rotate the map, hold the left mouse button down and move it around.

# Objects

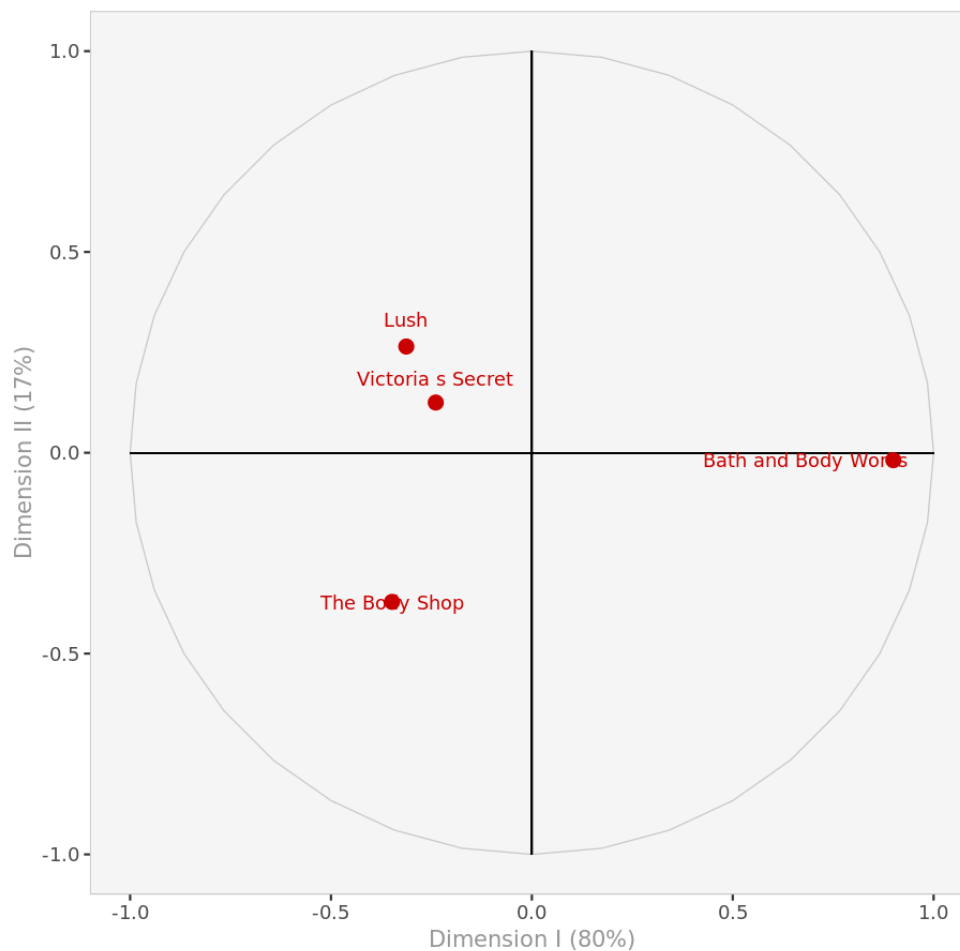
## Interpretation

In this section, only the objects (e.g., brands) are displayed on the perceptual map.

In interpreting the map, remember that the closer two objects are, the more similar they are perceived to be, that is, the more similar they rate on the underlying attributes.

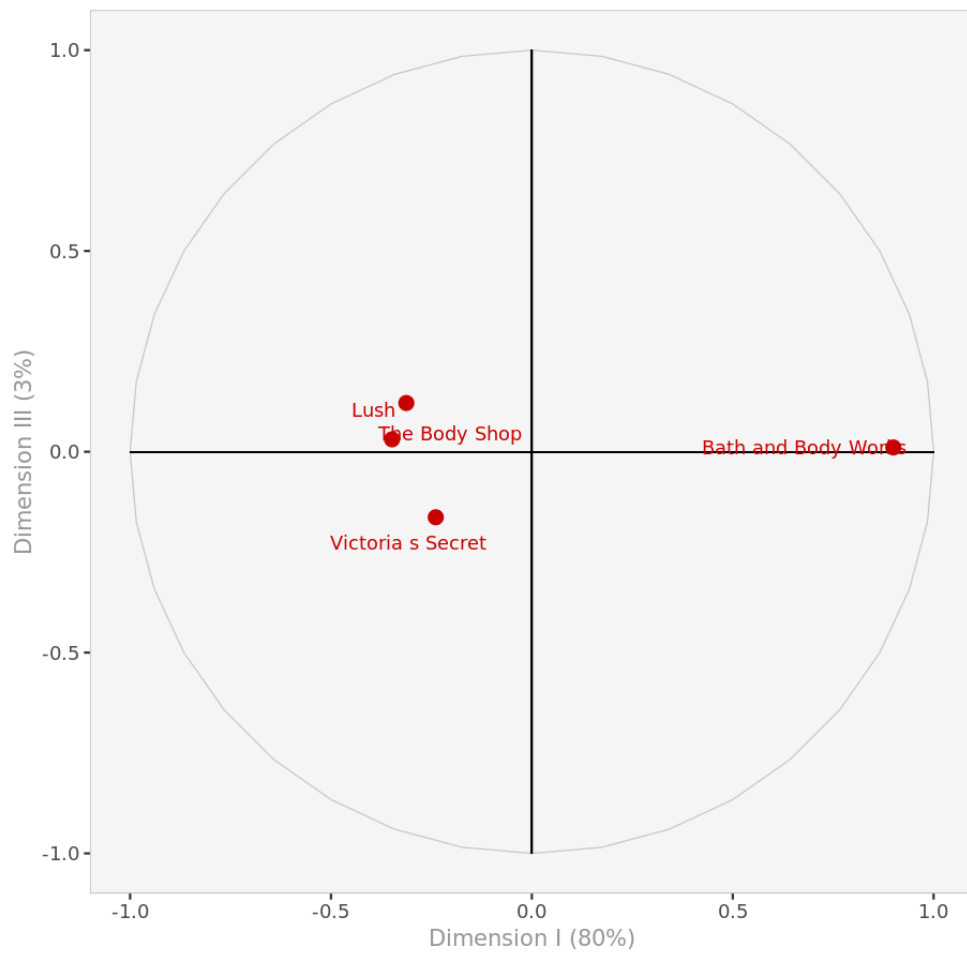
Since the first 3 dimensions of the perceptual map have been retained, the map can be seen as a cube in 3 dimensions. Each view displays the cube seen from a different angle.

## Dimensions I-II



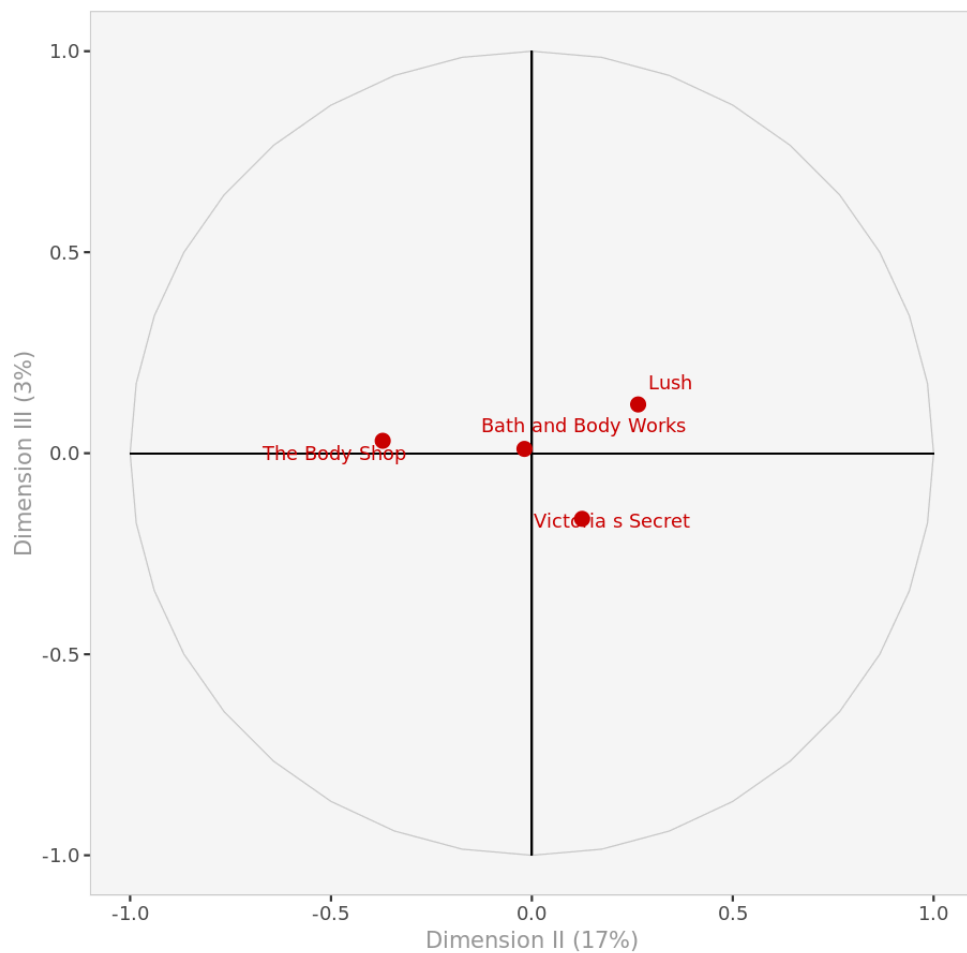
**Objects I-II.** Object position on the first and second dimensions of the perceptual map.

## Dimensions I-III



**Objects I-III.** Object positions on the first and third dimensions of the perceptual map.

### Dimensions II-III





**Objects II-III.** Object positions on the second and third dimensions of the perceptual map.

## Coordinates

	Dimension I	Dimension II	Dimension III
<b>Bath and Body Works</b>	0.900	-0.018	0.011
<b>Victoria s Secret</b>	-0.239	0.125	-0.163
<b>The Body Shop</b>	-0.348	-0.371	0.031
<b>Lush</b>	-0.313	0.265	0.121

**Object coordinates.** Displays the coordinates of all the objects in every dimension.

# Attributes

## Interpretation

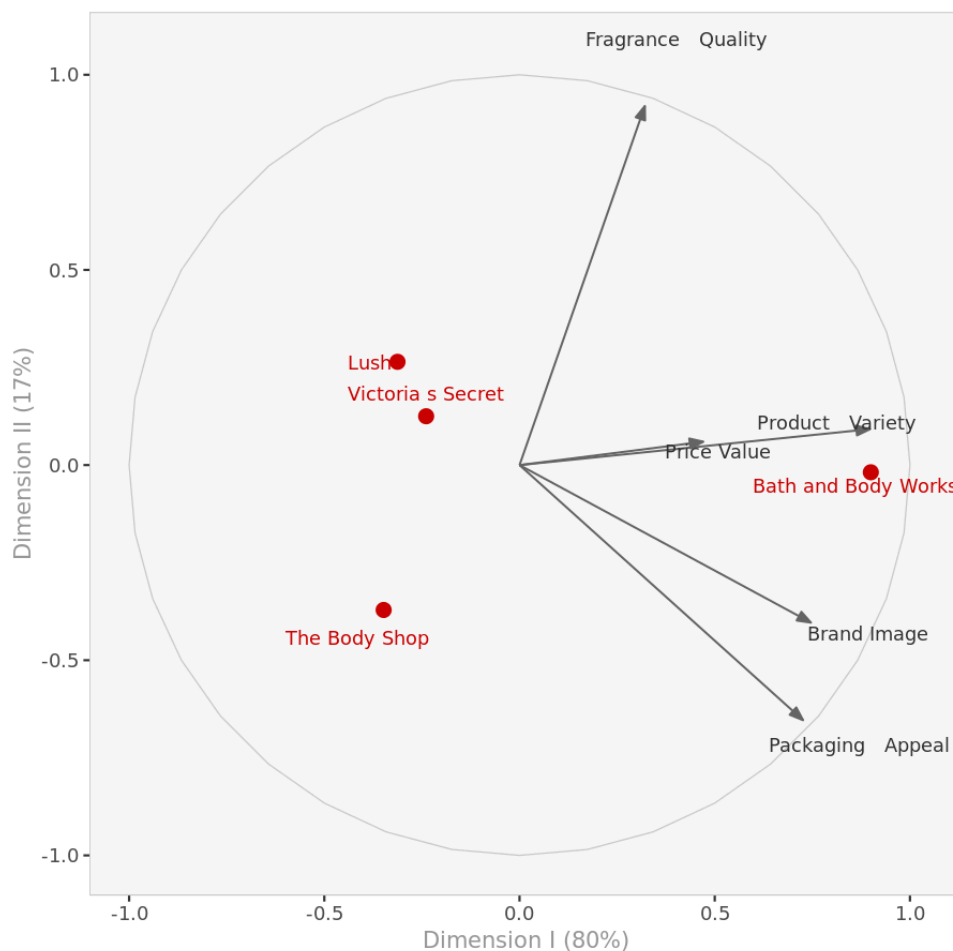
In interpreting the direction of the attributes, remember that:

- Two attributes that go in the same direction are positively correlated, that is, an object rated high on one attribute will usually be rated high on the other.
- Two attributes that are perpendicular to one another are uncorrelated.
- Two attributes that go in opposite directions are negatively correlated, that is, an object rated high on one attribute will often rate low on the other, and vice-versa.

In interpreting the length of the vector representing the attributes:

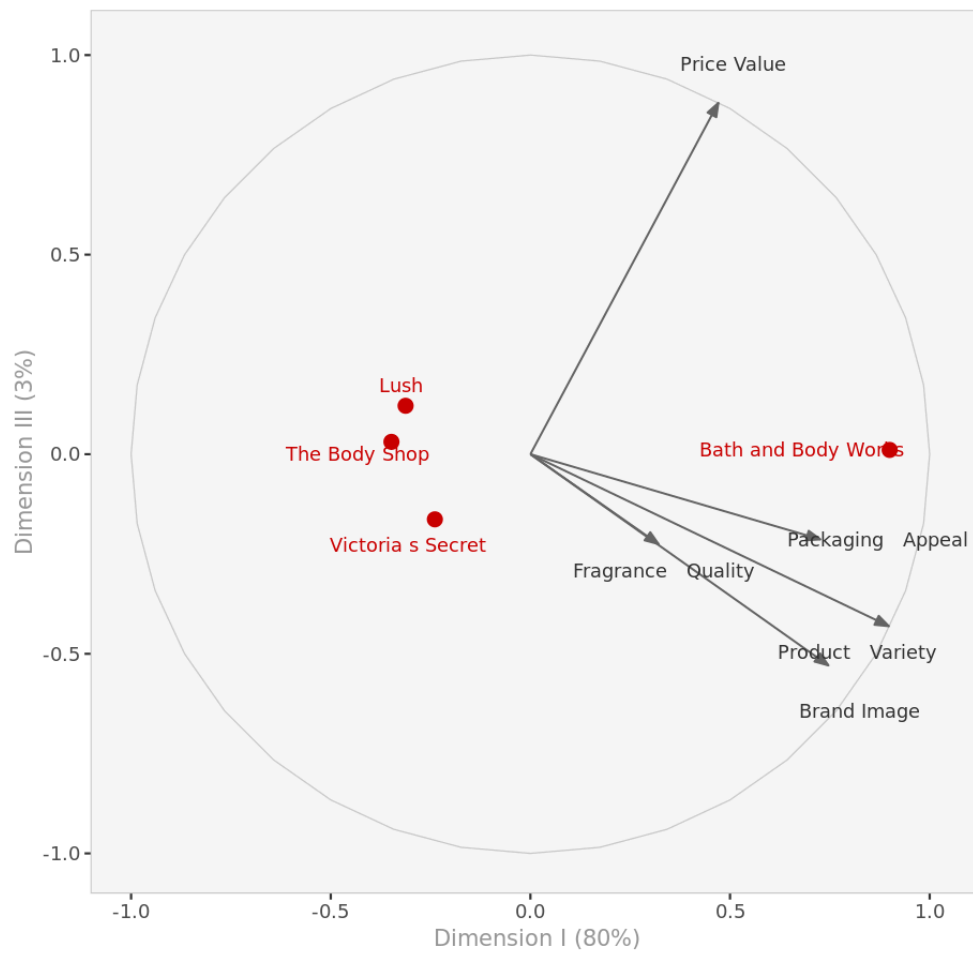
- The longer the attribute vector, the better that attribute is captured by the two dimensions displayed.
- If an attribute appears very close to the origin when looking at dimensions I and II, it could be longer and be better captured by dimension III.

## Dimensions I-II



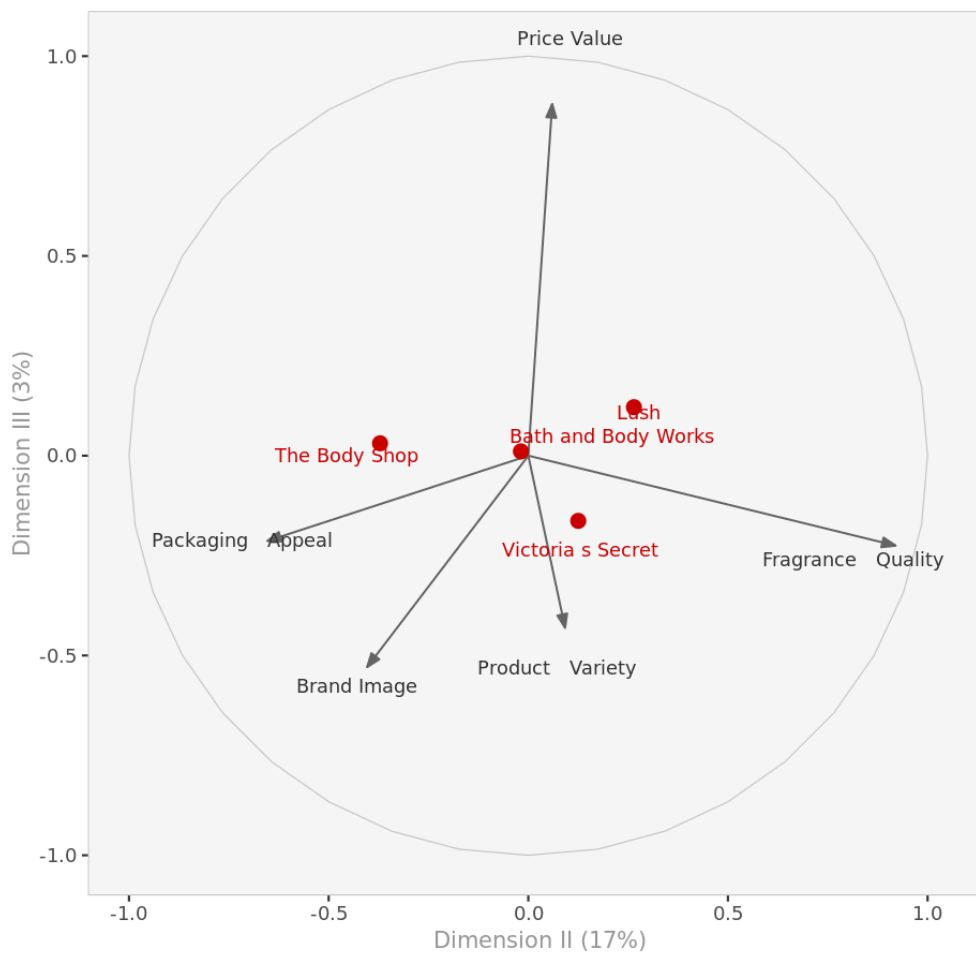
**Attributes I-II.** Objects and attributes on the first and second dimensions of the perceptual map.

## Dimensions I-III



**Attributes I-III.** Objects and attributes on the first and third dimensions of the perceptual map.

## Dimensions II-III



**Attributes II-III.** Objects and attributes on the second and third dimensions of the perceptual map.

## Coordinates

	Dimension I	Dimension II	Dimension III
<b>Fragrance Quality</b>	0.321	0.920	-0.225
<b>Price Value</b>	0.471	0.060	0.880
<b>Packaging Appeal</b>	0.726	-0.654	-0.213
<b>Product Variety</b>	0.898	0.092	-0.431
<b>Brand Image</b>	0.746	-0.404	-0.529

**Attributes coordinates.** Displays the coordinates of all the attributes in every dimension.

## Summary

	Dimension I	Dimension II	Dimension III
<b>1</b>	Product Variety	Fragrance Quality	Price Value
<b>2</b>	Brand Image		
<b>3</b>	Packaging Appeal		

**Dimension interpretation.** Displays the names of the attributes most aligned with each dimension.

	Dimension I	Dimension II	Dimension III
<b>Fragrance Quality</b>	0.0910	0.2607	-0.0638
<b>Price Value</b>	0.1403	0.0179	0.2624
<b>Packaging Appeal</b>	0.1385	-0.1246	-0.0407
<b>Product Variety</b>	0.1490	0.0153	-0.0715
<b>Brand Image</b>	0.1442	-0.0780	-0.1022

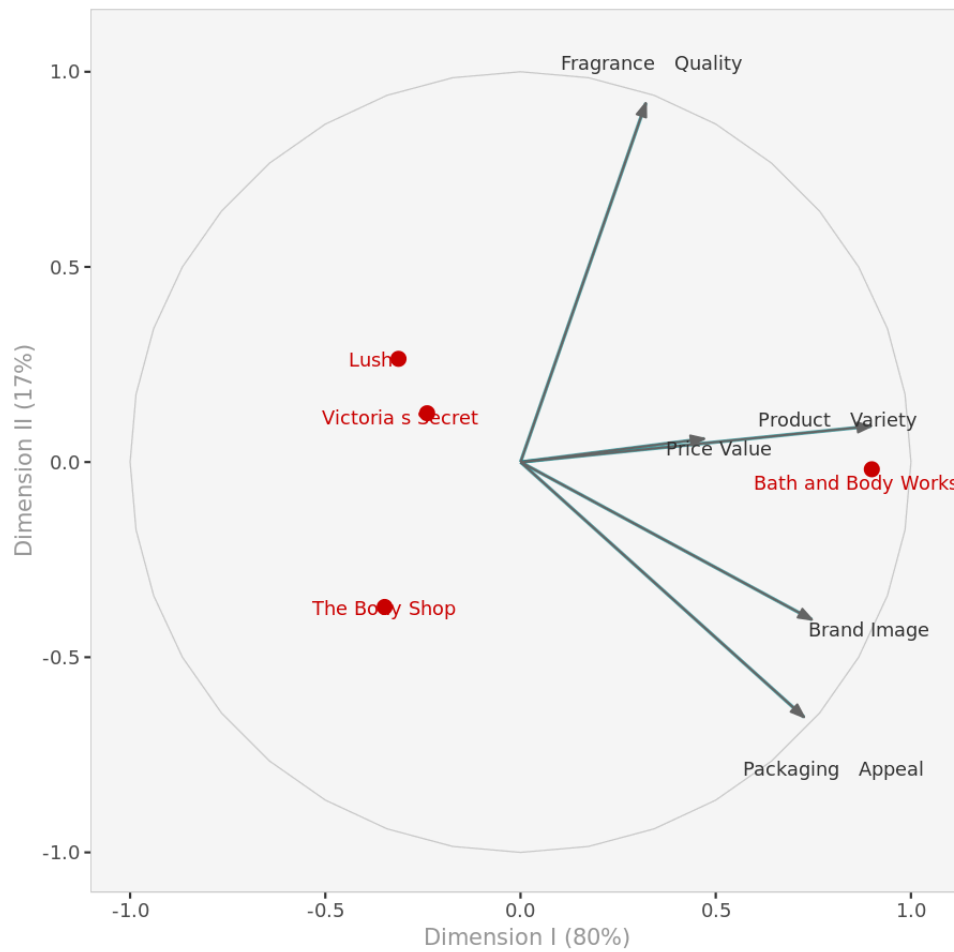
**Factor loadings (excerpt).** Displays the factor loadings of attributes.

	Mean	Stdev
<b>Fragrance Quality</b>	4.577	0.4129
<b>Price Value</b>	4.256	0.3614
<b>Packaging Appeal</b>	4.256	0.6372
<b>Product Variety</b>	4.009	0.4153
<b>Brand Image</b>	4.137	0.6307

**Mean and standard deviation (excerpt).** Displays the means and standard deviations of the attributes.

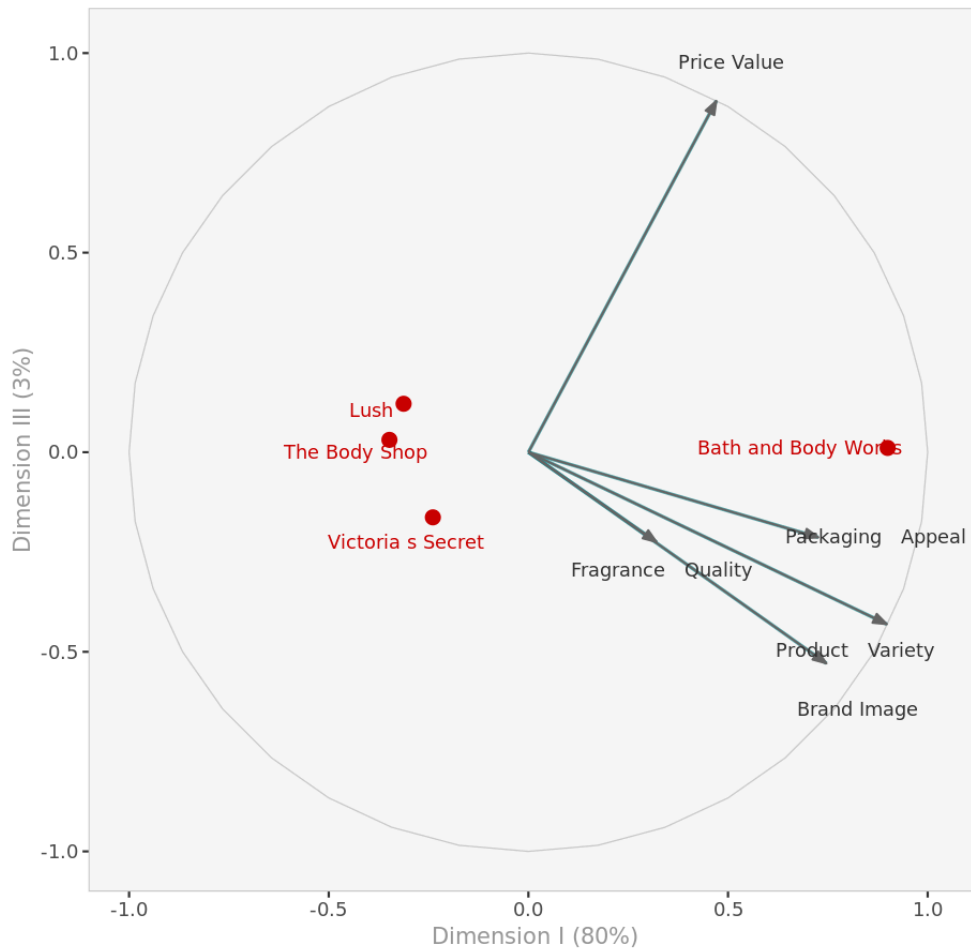
# Preferences

## Dimensions I-II



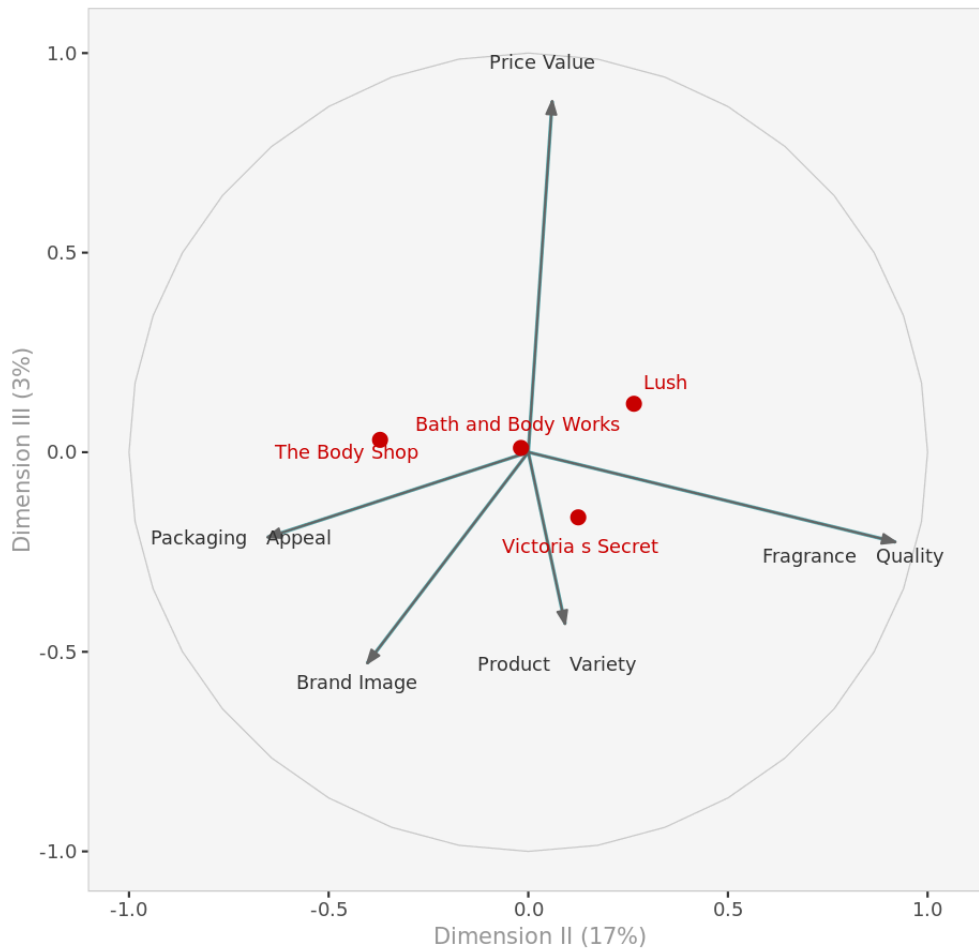
**Perceptual Map I-II.** Complete perceptual map with objects, attributes and preferences on the first and second dimensions.

## Dimensions I-III



**Perceptual Map I-III.** Complete perceptual map with objects, attributes and preferences on the first and third dimensions.

## Dimensions II-III

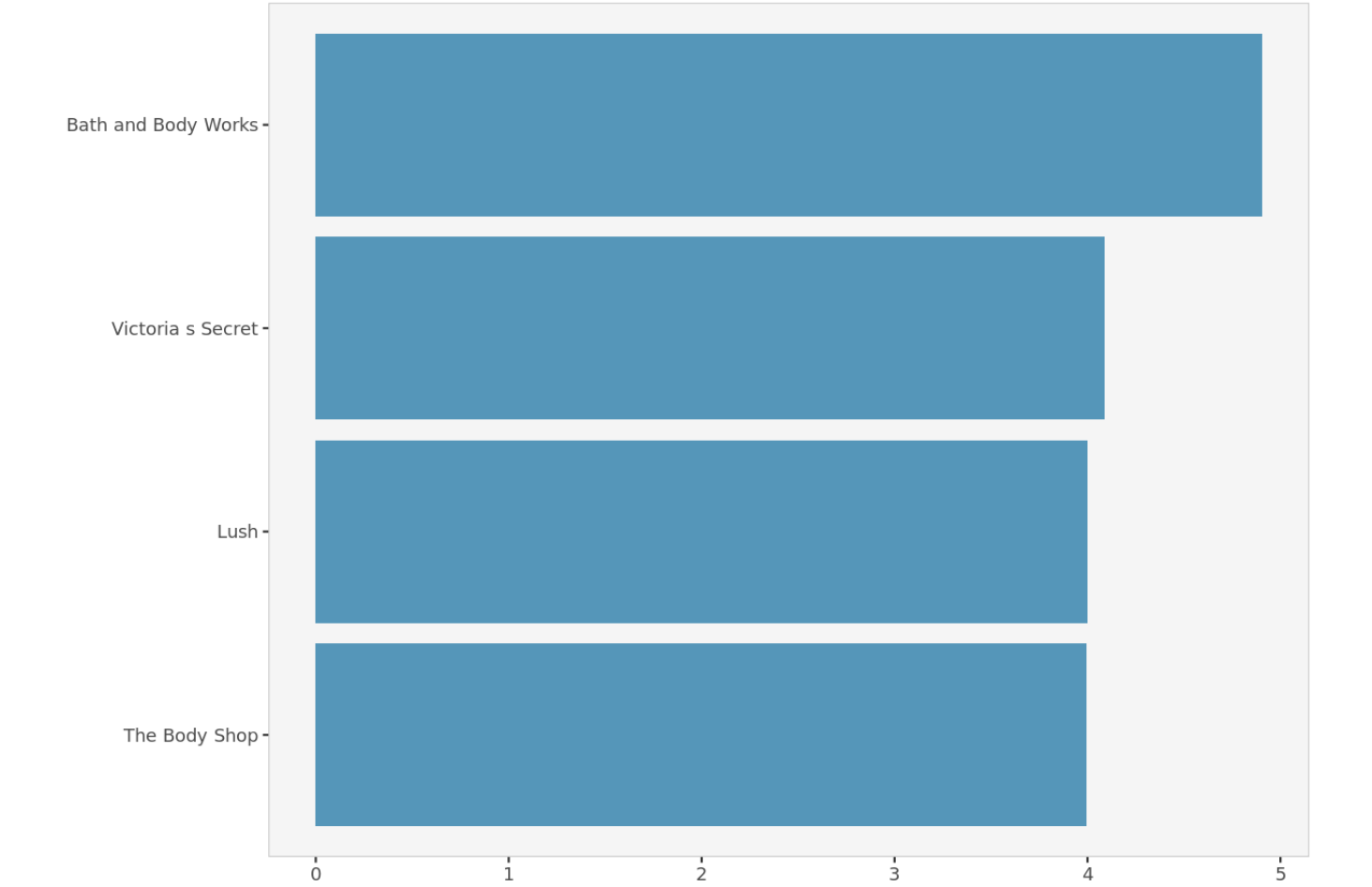


**Perceptual Map II-III.** Complete perceptual map with objects, attributes and preferences on the second and third dimensions.

## Preference data

	Average preference
<b>Bath and Body Works</b>	4.90
<b>Victoria s Secret</b>	4.09
<b>Lush</b>	4.00
<b>The Body Shop</b>	4.00

**Average brand preference.** For each brand, displays its average preference value in decreasing order.



**Average preferences histogram.** For each brand, displays its average preference value.

	Dimension I	Dimension II	Dimension III
Fragrance Quality	0.321	0.920	-0.225
Price Value	0.471	0.060	0.880
Packaging Appeal	0.726	-0.654	-0.213
Product Variety	0.898	0.092	-0.431
Brand Image	0.746	-0.404	-0.529

**Customer preferences (excerpt).** Displays the coordinates of customer preferences in every dimension.



# Market shares

## Introduction

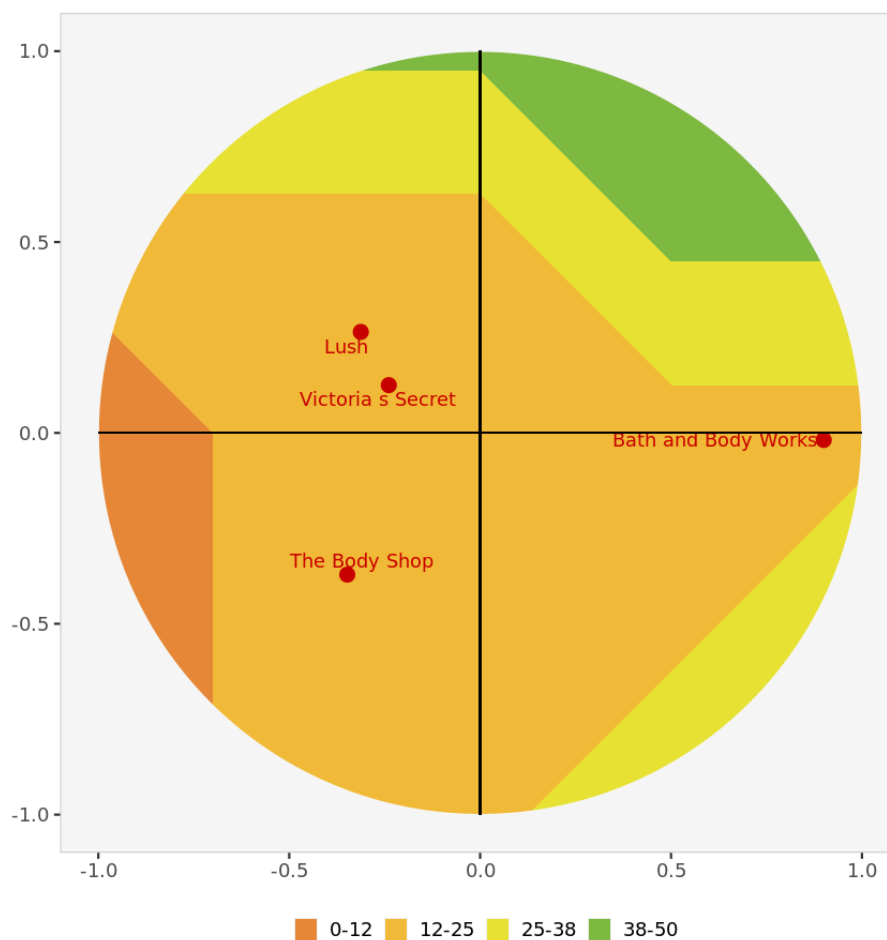
The following charts display simulations of the market shares a new product would achieve, depending on its position on the perceptual maps.

When two dimensions are displayed (e.g., Dimensions I and II), the new product is assumed to be at the center of the third dimension (e.g., Dimension III = 0).

These computations assume that all the other existing objects (i.e., products) will remain in the market, in their respective positions, and compete with the new entrant.

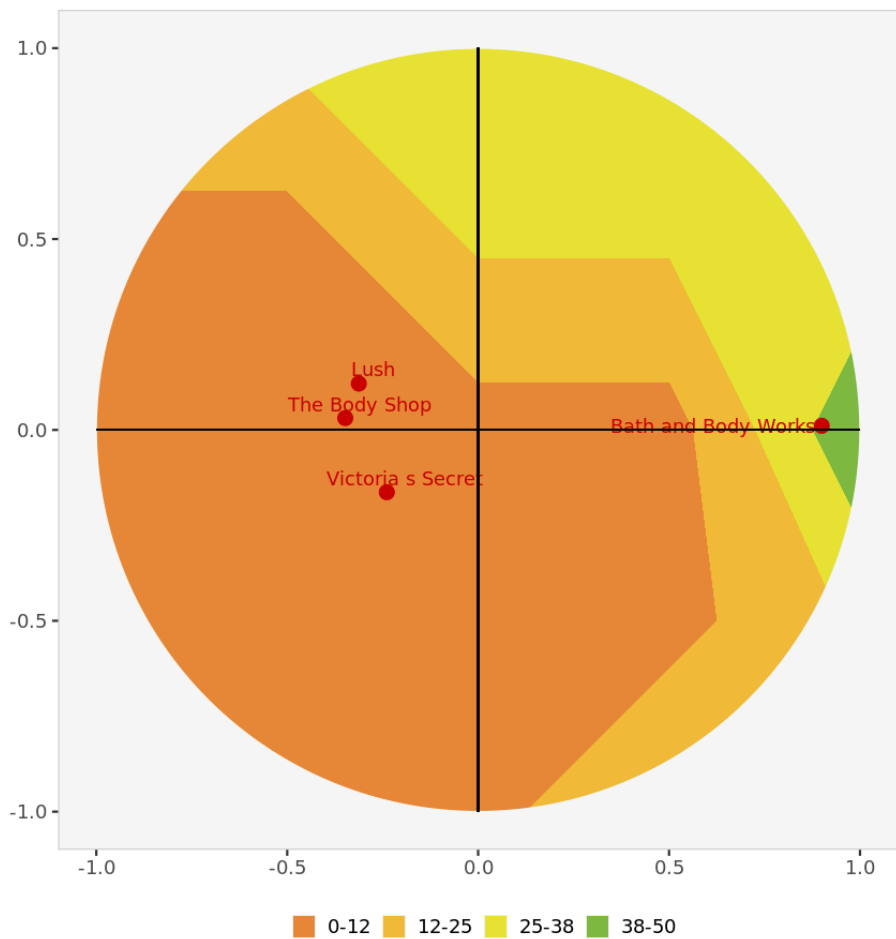
Market shares are estimated based on stated customers' preferences and the first-choice-rule.

## Dimension I-II



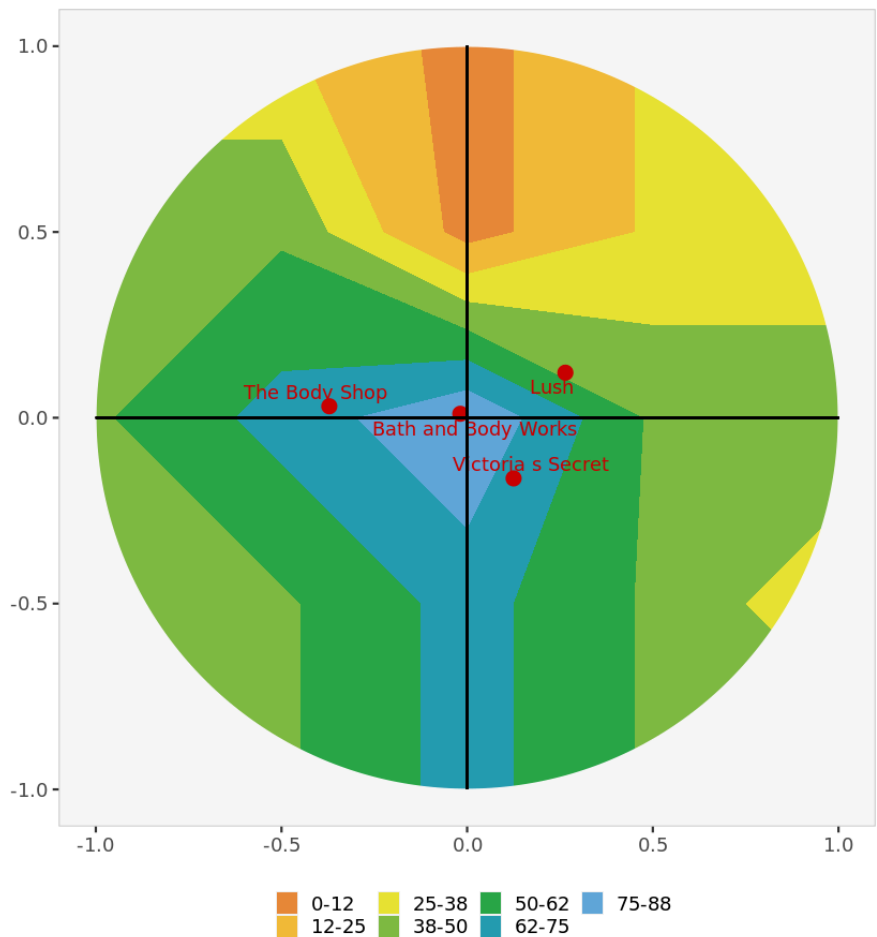
**Market shares Dimension I-II.** Objects positions along with market shares

## Dimension I-III



Market shares Dimension I-III. Objects positions along with market shares

Dimension II-III



**Market shares Dimension II-III. Objects positions along with market shares**

	Intercept	Dimension I	Dimension II	Dimension III
<b>1</b>	4.58	0.417	1.194	-0.292
<b>2</b>	4.26	0.563	0.072	1.052
<b>3</b>	4.26	0.979	-0.881	-0.288
<b>4</b>	4.01	0.687	0.070	-0.329
<b>5</b>	4.14	1.009	-0.546	-0.715

**Preference beta values (excerpt).**

	Parameter	Value
<b>1</b>	Rule	First-choice
<b>2</b>	alpha	none

**Market share parameter table.**

	Bath and Body Works	Victoria s Secret	The Body Shop	Lush
<b>Fragrance Quality</b>	4.926829268	4.674418605	3.979591837	4.727272727
<b>Price Value</b>	4.772727273	3.959183673	4.066666667	4.227272727
<b>Packaging Appeal</b>	5.15	3.958333333	4.233333333	3.681818182
<b>Product Variety</b>	4.621621622	3.906976744	3.733333333	3.772727273
<b>Brand Image</b>	5.047619048	3.944444444	3.966666667	3.590909091

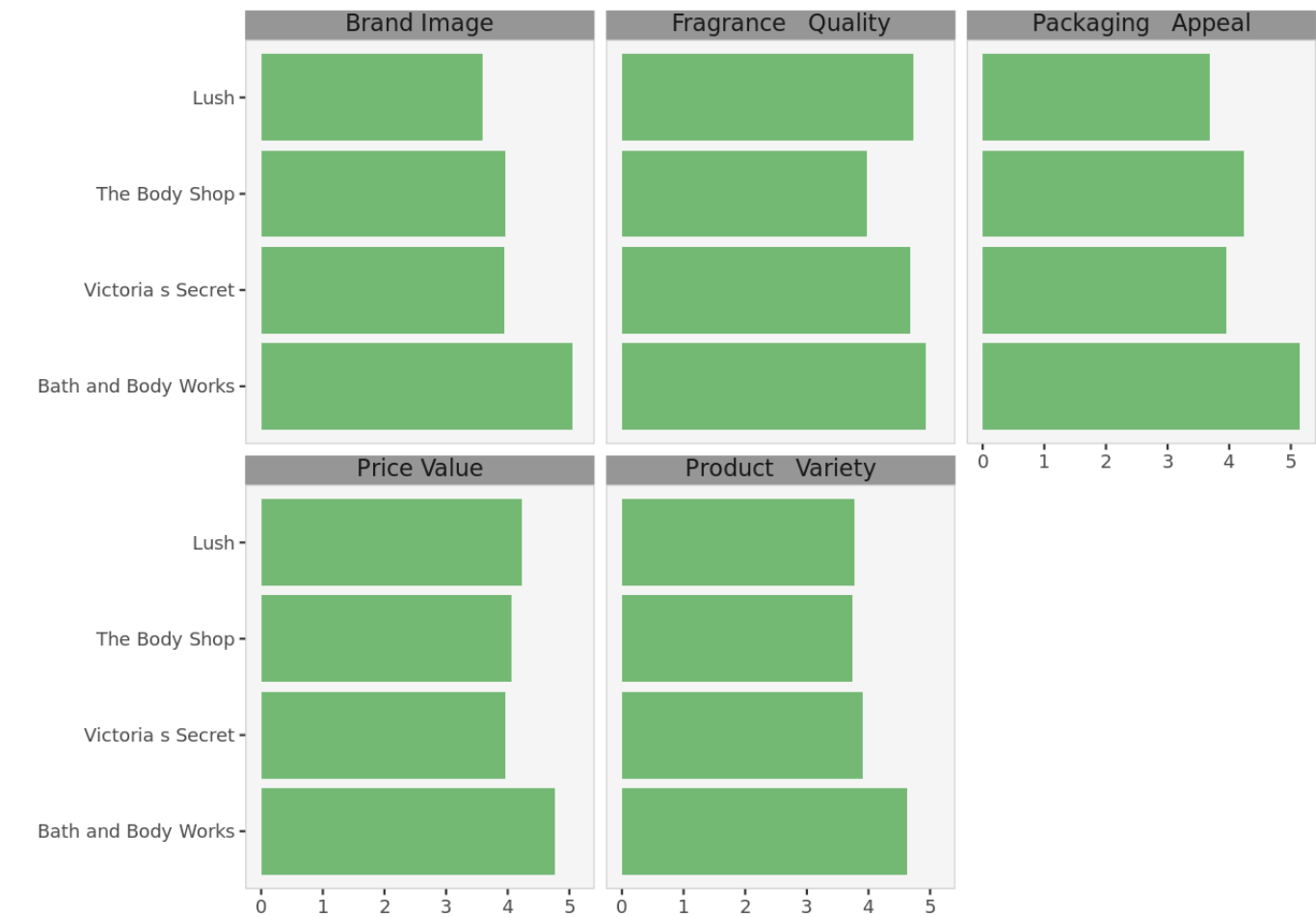
**Actual preference data (excerpt).**

# Perceptual data

## Perceptual data

	Bath and Body Works	Victoria s Secret	The Body Shop	Lush
Fragrance Quality	4.9	4.7	4.0	4.7
Price Value	4.8	4.0	4.1	4.2
Packaging Appeal	5.2	4.0	4.2	3.7
Product Variety	4.6	3.9	3.7	3.8
Brand Image	5.0	3.9	4.0	3.6

**Perceptual data overview.** Perception values for each attribute are shown in red if they are significantly (1 standard deviation) less than average perception of all brands. Perception values are shown in green if they are significantly more than average perception of all brands.



**Attributes histograms.** For each attribute, this chart displays a histogram of brand positions.

Copyright (c) 2025, DecisionPro Inc.