

Main steps in interpreting PCA results

We summarize hereafter the main points in the interpretation of PCA results

Inertia of the factors

Eigenvalues and diagram/chart of eigenvalues:

Comment the values of eigenvalues and the associated proportions of inertia.

How many factors to retain?

1. Interpretation of the factors

It is important to ensure that enough elements contribute to the first factors.

For each axis, and successively, select the most contributory columns. For example, until 80% of the inertia is reached

Coordinates of active elements

Interpret, axis by axis and then plane by plane, successively. Mainly from the point of view of the columns.

To interpret an axis, look for:

- The columns with a high contribution
- The columns with a good quality of representation
- *Coordinates of active elements*

Coordinates of the supplementary variables

Which is the information that the supplementary categorical variables bring?
Which is the information that the supplementary quantitative variables bring?

Interpret all the axes that you have retained.

Illustrate your comments with the graphical results.

Illustrate your comments with a “return to the data”

Use the illustrative categories to synthesize the individuals’ point of view.

2. Synthesis of the PCA

Provide a brief synthesis of the results