

g.princals

It's R-script to improve aesthetic plotting of princals function of Gifi package

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Proposal

g.princals is a function designed to address aesthetic issues encountered when using plot.princals of "Gifi" package(1), which exclusively generates plots using a "graphic" package. g.princals leverages the power of the ggplot2 package, renowned for producing high-quality visuals.this function just produce, transplot, scree plot, loadplot and biplot for hierarchical categoric variables(2).

Instruction

"g.princals" replaces the default "plot" function in R, generating customized graphics for customer items.
- x: call a object was generated by princals(dataset). - plot.dim: Vector with dimensions to be plotted with the default condition being set to c(1, 2). - var.subset: with the default condition being set to "all" - max.plot.array: with the default condition being set to 2. - stepvec: Vector whether step function should be plotted (see details in princals/R Documentation).with the default condition being set to NA. - col.lines: colour of line. Default condition being set to "black". - main: Title of picture. Default condition being set to name of princals object. - show: Options to choose are TRUE,FALSE,T,F,1 and 0. Default condition being set to "1" mean it shows plots. - save: Options to choose are TRUE,FALSE,T,F,1 and 0. Default condition being set to "1" mean it saves plots. - name: label or name of princals object. Default condition being set to name of princals object. - units: unit of width/height in 'mm' - width: Default condition being set to 250mm. - height: Default condition being set to 250mm. - res: resolution of pictures. Default condition being set to 300 pixels.

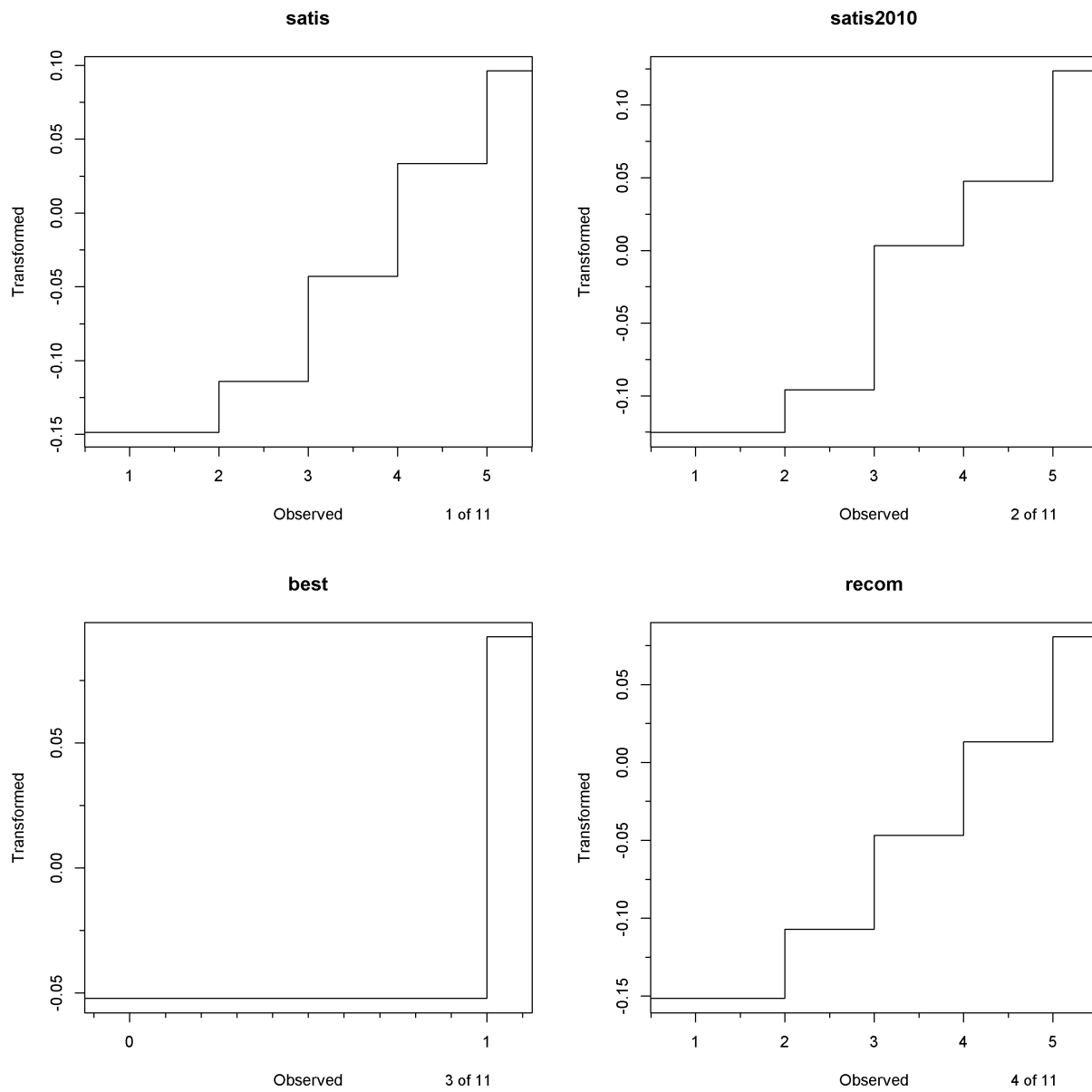
R code

Finally, it were showed a picture which generated by "g.princals".

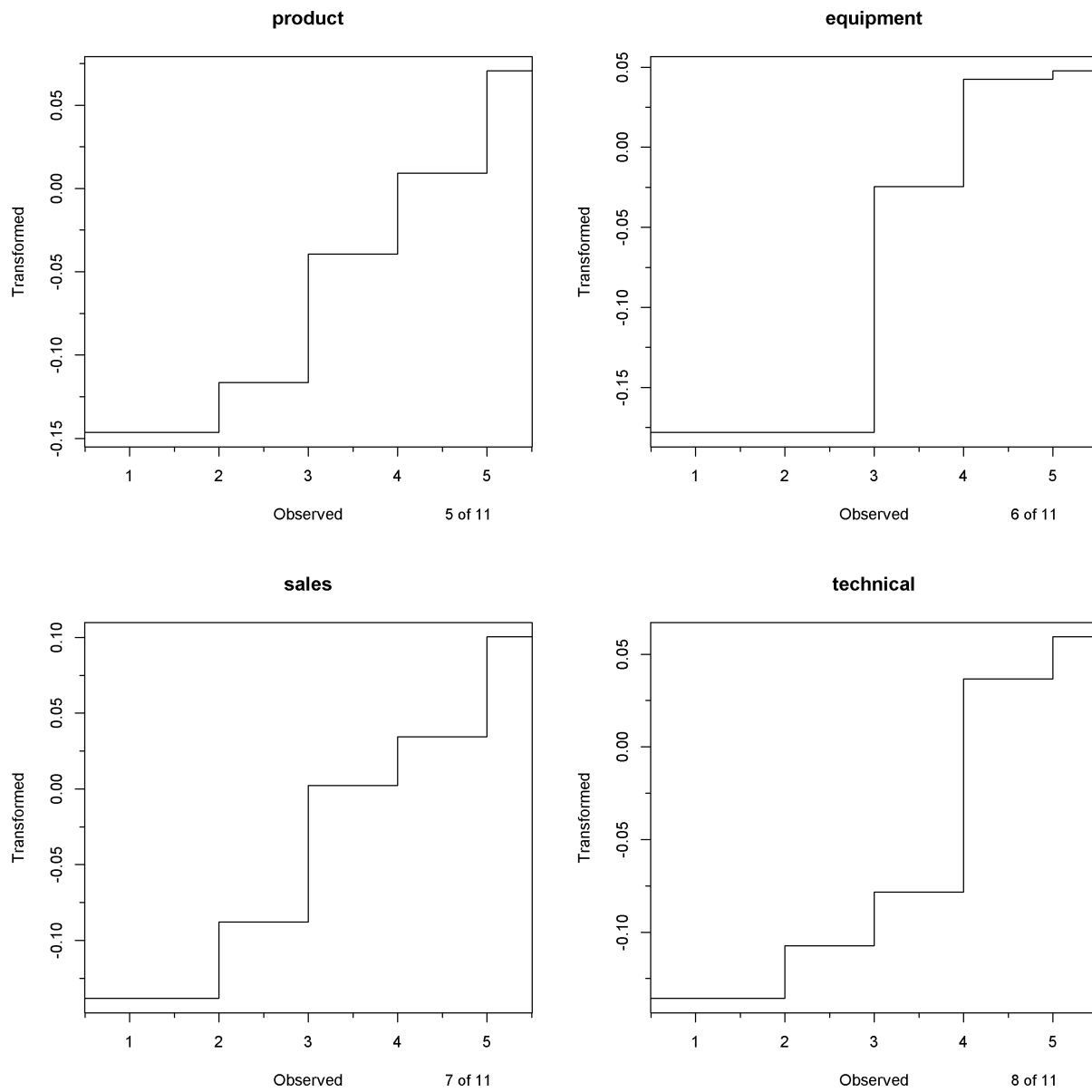
```
#####  
setwd("~/file")  
source("https://github.com/jasb3110/g.princals/blob/f286b26f79da57600c3e7f207a6f653f24028a76/g.princals  
ABC6 <- ABC[,6:11]  
fitord <- princals(ABC6,ndim = 6)  
g.princals(fitord,save=0,show=1)#show plots  
g.princals(fitord,save=1,show=0)#save plots in PNG format  
#####
```

Output

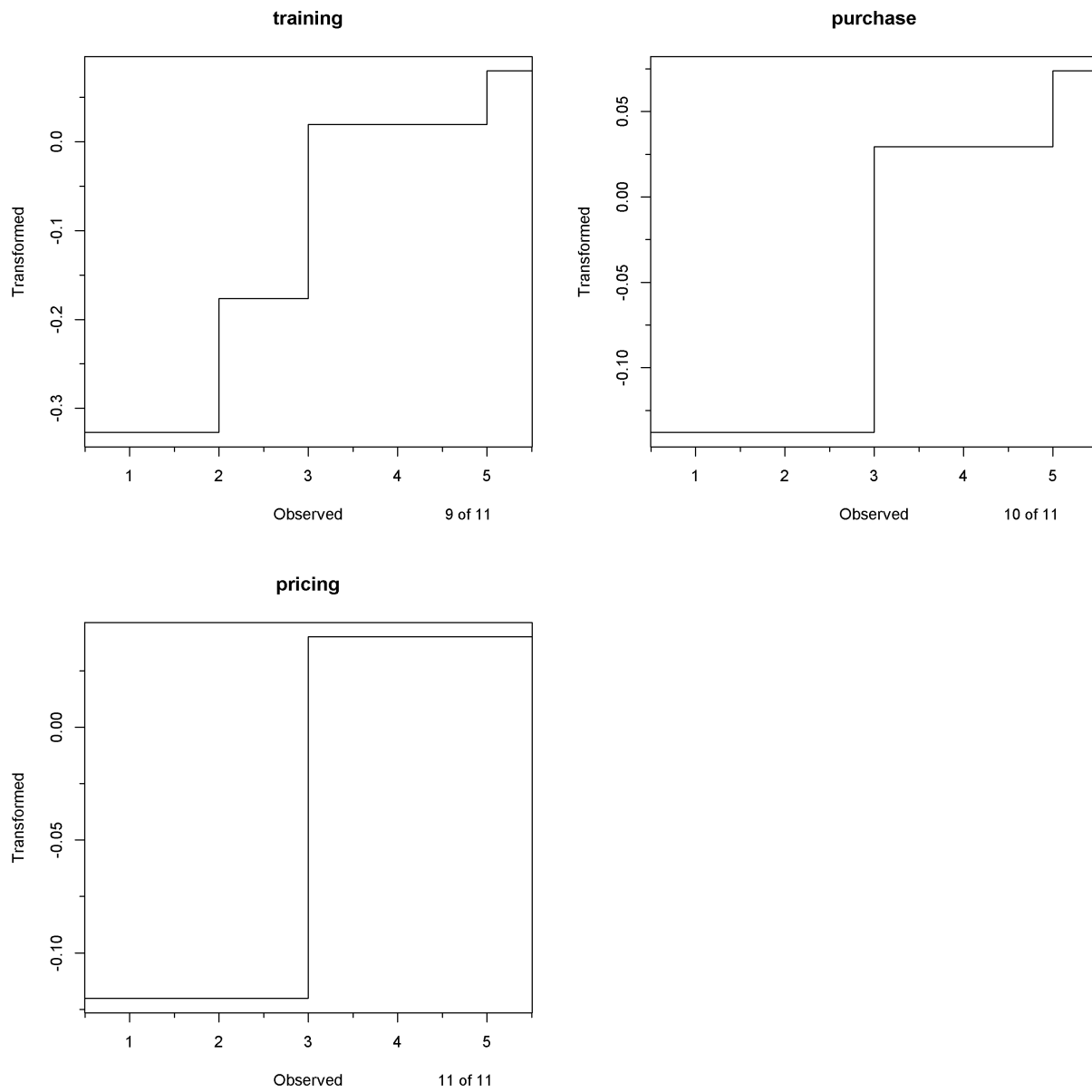
In this section, an R script and corresponding plots created using the g.princals function are presented.



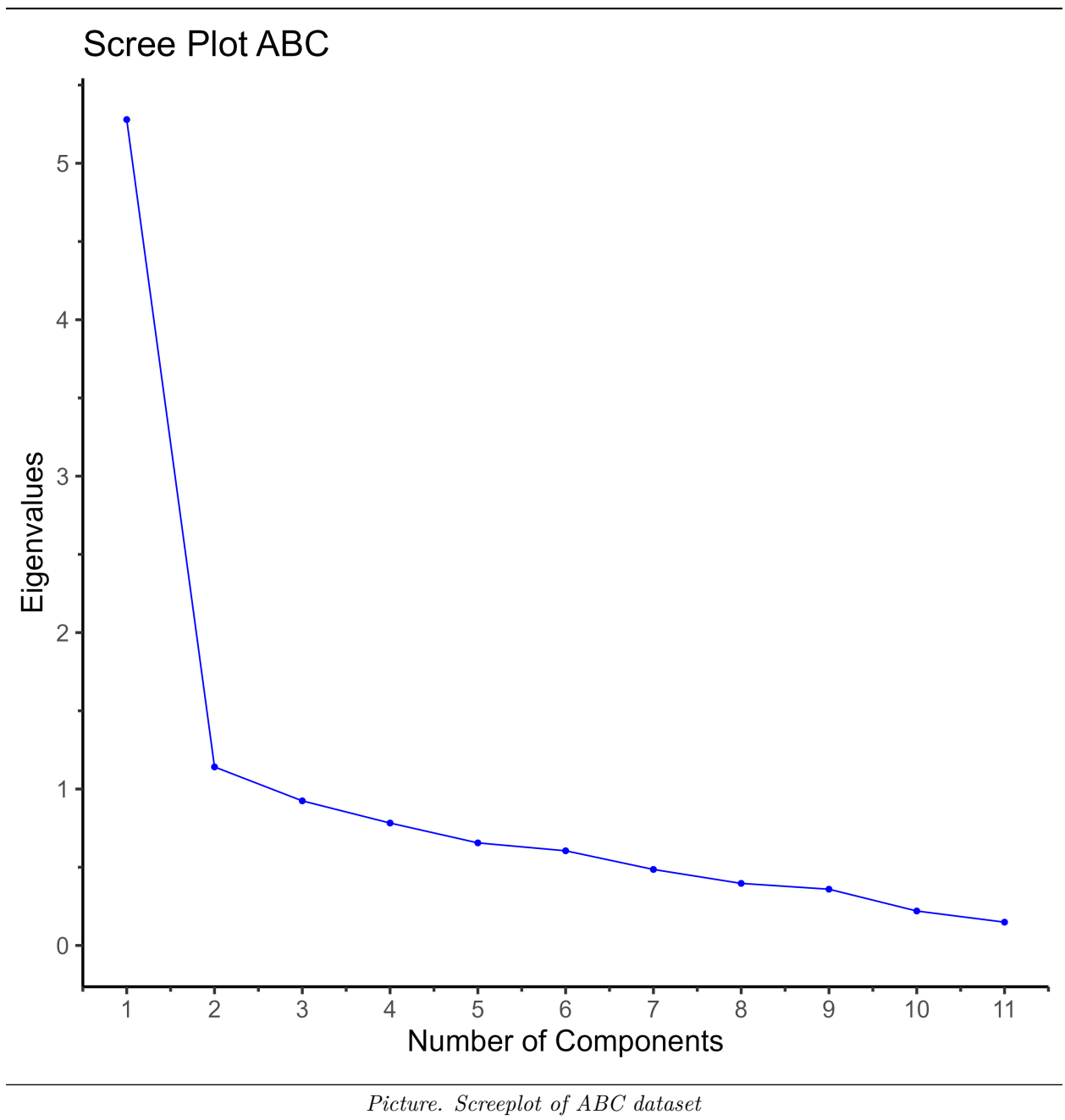
Picture. Transplots of ABC dataset, just 1 to 4 variables

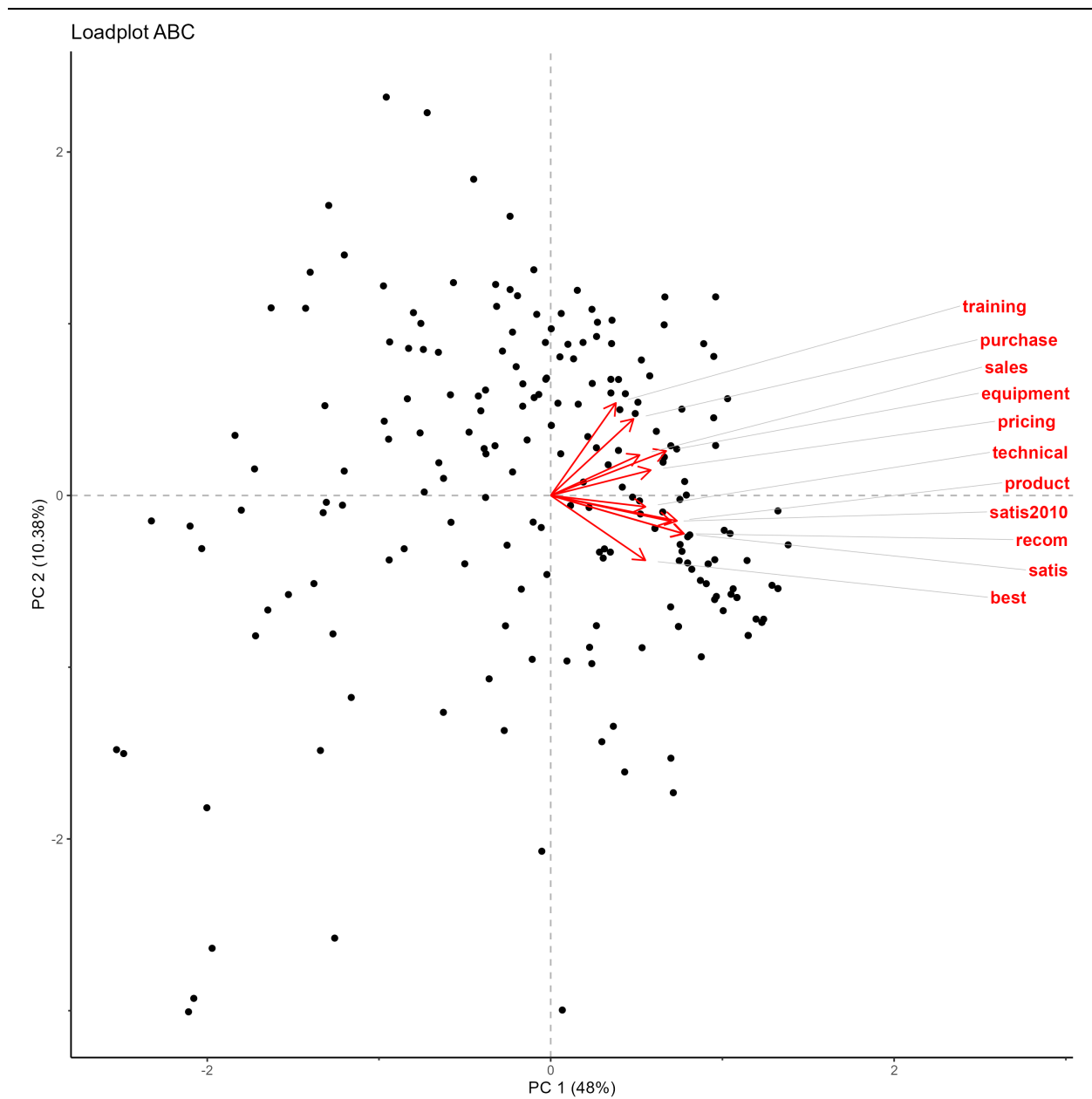


Picture. Transplots of ABC dataset, just 5 to 8 variables

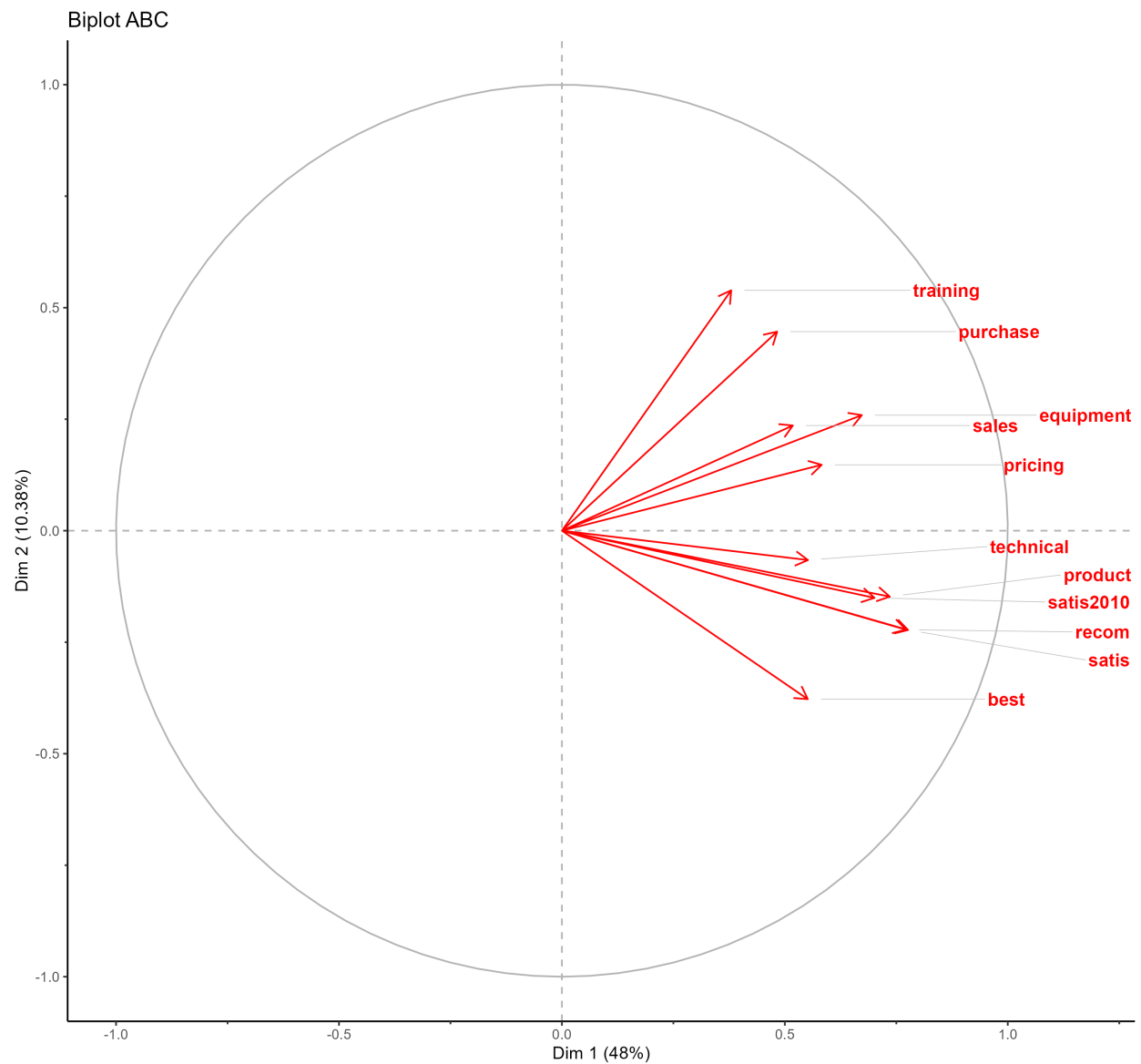


Picture. Transplots of ABC dataset, just 9 to 11 variables





Picture. Loadplot of ABC dataset



Picture. Biplot of ABC dataset

Reference

- <https://rdr.io/rforge/Gifi/src/R/plot.princals.R>
- <https://github.com/jasb3110/g.princals/blob/7d6bcd378248de201963f0413eee7c232bb2f753/g.princals.R>