```
*;
*;
* HATCO - Principal Components Analysis;
*;
*    ods graphics on;
*;
*options ls=80 ps=50 nodate pageno=1;
*;
* Input HATCO ;
*;

ods pdf file="\\Mac\Home\Downloads\HATCO_Factor Proc Rotated Third Run.pdf";

Title 'HATCO Factor Proc Rotated Third Run';

Data HATCO;
Infile '"\\Mac\Home\Downloads\HATCO_X1-X7_Tabs.txt"' DLM = '09'X TRUNCOVER;
Input X1 X2 X3 X4 X5 X6 X7;
*;
Data HATCO;
      Set HATCO (Keep = X1 X2 X3 X4 X5 X6 X7);
      Label X1 = 'X1 - Delivery Speed'
            X2 = 'X2 - Price Level'
          X3 = 'X3 - Price Flexibility'
          X4 = 'X4 - Manufacturer Image'
          X5 = 'X5 - Service'
          X6 = 'X6 - Salesforce Image'
          X7 = 'X7 - Product Quality';
*;
Proc Print Data = HATCO;
*;
*;
*Proc Univariate Data = HATCO Normal Plot;
*    Var X1 X2 X3 X4 X5 X6 X7;
*;
* Principal Components Analysis - All Variables;
*;
*Proc Princomp Data = HATCO Plots = ALL;
*    Var X1 X2 X3 X4 X5 X6 X7;
*;
*;
************ All Variables - Method=Principal Rotation: None and Varimax
***************;
*;
* Exploratory Factor Analysis Rotate=NONE All Variables ;
*;
*Proc Factor Data = HATCO Method=Principal Rotate=None NFactors=3 Simple MSA
Plots = Scree MINEIGEN=0 Reorder;
*    Var X1 X2 X3 X4 X5 X6 X7;
*;
*****************Variable X5 deleted - Method=Principal Rotation:
None******************;
*Proc Factor Data = HATCO Method=Principal Rotate=None NFactors=3 Simple Corr
MSA Plots = Scree MINEIGEN=0 Reorder;
```

```
*    Var X1 X2 X3 X4 X6 X7;
*;
*********************Exploratory Factor Analysis Rotate=Varimax X5
deleted*****************;
*;
*Proc Factor Data = HATCO Method=Principal Rotate=Varimax NFactors=3 Print Score
Simple Corr MSA Plots = Scree MINEIGEN=0 Reorder;
*    Var X1 X2 X3 X4 X6 X7;
*;
*******************Exploratory Factor Analysis Rotate=None X5 Deleted and
NFactors=2*************;
*;
*Proc Factor Data = HATCO Method=Principal Rotate=None NFactors=2 Simple Corr
MSA Plots = Scree MINEIGEN=0 Reorder;
*    Var X1 X2 X3 X4 X6 X7;
*;
***************Exploratory Factor Analysis Rotate=Varimax X5 Deleted and
NFactors=2****************;
*;
*Proc Factor Data = HATCO Method=Principal Rotate=Varimax NFactors=2 Print Score
Simple Corr MSA Plots = Scree MINEIGEN=0 Reorder;
*    Var X1 X2 X3 X4 X6 X7;
*;
************  Compute Factor and Summated Scores****************;
*;
Proc Factor Data = HATCO Outstat=FactOut Method=Principal Rotate=Varimax
NFactors=2 Print Score Simple MSA Plots = ALL MINEIGEN=0 Reorder;
    Var X1 X2 X3 X4 X6 X7;
Proc Score Data=HATCO Score=FactOut Out=FScore;
     Var X1 X2 X3 X4 X6 X7;
*;
Proc Print Data = FactOut;
*;
Proc Print Data = FScore;
*;
Data FScore;
     Set FScore;
     Label SumScale1 = 'SumScale1 - Purchase Value'
           SumScale2 = 'SumScale2 - Marketing';
     SumScale1 = (X3 + X1 + (10 - X2) + (10 - X7)) / 4;
     SumScale2 = (X4 + X6) / 2;
*;
Proc Print Data = FScore;
*;
Proc Means Data = FScore;
   Var Factor1 Factor2 SumScale1 SumScale2;
*;
*;
************  Compute Factor and Summated Correlations ****************;
*;
Proc Corr Data = FScore;
   Var Factor1 Factor2 SumScale1 SumScale2;
*;
*;
```

```
**** STOP Examples HERE ********;
*/
Run;
Quit;

ods pdf close;
```