```
libname mylib "P:\";
filename bigrec "P:\FA15_data.txt"  lrecl = 65576;
data mytemp;
  infile bigrec;
  input
    myid 1-7
      Pay_any_elec_ALot 6946
      Pay_any_elec_ALittle 6963
      Pay_any_elec_NEDI 6997
      Pay_any_elec_DLittle 7014
      Pay_any_elec_DLot 7031
      Keep_Up_Tech_ALot 6953
      Keep_Up_Tech_ALittle 6970
      Keep_Up_Tech_NEDI 7004
      Keep_Up_Tech_DLittle 7021
      Keep_Up_Tech_DLot 7038
      Alot_Gadgets_ALot 6959
      Alot_Gadgets_ALittle 6976
      Alot_Gadgets_NEDI 7010
      Alot_Gadgets_DLittle 7027
      Alot_Gadgets_DLot 7044
      Buy_Gad_and_App_ALot 6954
      Buy_Gad_and_App_ALittle 6971
      Buy_Gad_and_App_NEDI 7005
      Buy_Gad_and_App_DLittle 7022
      Buy_Gad_and_App_DLot 7039

      Want_More_COS_ALot 7119
      Want_More_COS_ALittle 7138
      Want_More_COS_NEDI 7176
      Want_More_COS_DLittle 7203
      Want_More_COS_DLot 7222

      INFO_Me_ALot 7123
      INFO_ME_ALittle 7142
      INFO_ME_NEDI 7180
      INFO_ME_DLittle 7218
      INFO_ME_DLot 7214

      RISKY_INFO_ALot 7125
      RISKY_INFO_ALittle 7144
      RISKY_INFO_NEDI 7182
      RISKY_INFO_DLittle 7201
      RISKY_INFO_DLot 7220

      Companies_Priv_ALot  7116
      Companies_Priv_ALittle 7135
      Companies_Priv_NEDI 7173
      Companies_Priv_DLittle 7211
      Companies_Priv_DLot 7192

      Net_Free_Time_ALot 5490
      Net_Free_Time_ALittle 5528
      Net_Free_Time_NEDI 5604
```

```
        Net_Free_Time_DLittle 5642
        Net_Free_Time_DLot 5680

        NET_Plan_Travel_ALot 5506
        NET_Plan_Travel_ALittle 5544
        NET_Plan_Travel_NEDI 5620
        NET_Plan_Travel_DLittle 5658
        NET_Plan_Travel_DLot 5696

        NET_Change_Work_ALot 5499
        NET_Change_Work_ALittle 5537
        NET_Change_Work_NEDI 5613
        NET_Change_Work_DLittle 5651
        NET_Change_Work_DLot 5689

        Comp_Source_Fun_ALot 6955
        Comp_Source_Fun_ALittle 6972
        Comp_Source_Fun_NEDI 7006
        Comp_Source_Fun_DLittle 7023
        Comp_Source_Fun_DLot 7040

        IPHONE 7986

        Samsung 7992
        Male 2383
        Female 2384
        Parent_Guardian_Yes 2604
        Parent_Guardian_No 2605
        Born_In_US_Yes 43
        Born_In_US_No 44
        Lyl_To_Co_Add_Spanish_ALot 386
        Lyl_To_Co_Add_Spanish_ALittle 392
        Lyl_To_Co_Add_Spanish_NEDI 404
        Lyl_To_Co_Add_Spanish_DLittle 410
        Lyl_To_Co_Add_Spanish_DLot 416;
run;

proc format;
value myscale
     1 = "disagree a lot"
     2 = "disagree a little"
     3 = "neither agree nor disagree"
     4 = "agree a little"
     5 = "agree a lot";
value yesno
     0 = "no"
     1 = "yes";
run;
data myvars;
     set mytemp;
     if Pay_any_elec_ALot = 1 then Pay_Any=5;
     if Pay_any_elec_ALittle = 1 then Pay_Any=4;
     if Pay_any_elec_NEDI=1 then Pay_Any=3;
     if Pay_any_elec_DLittle=1 then Pay_Any=2;
```

```
if Pay_any_elec_DLot=1 then Pay_Any=1;
if Keep_Up_Tech_ALot=1 then Up_Tech=5;
if Keep_Up_Tech_ALittle=1 then Up_Tech=4;
if Keep_Up_Tech_NEDI =1 then Up_Tech=3;
if Keep_Up_Tech_DLittle =1 then Up_Tech=2;
if Keep_Up_Tech_DLot =1 then Up_Tech=1;
if Alot_Gadgets_ALot=1 then Gad=5;
if Alot_Gadgets_ALittle=1 then Gad=4;
if Alot_Gadgets_NEDI=1 then Gad=3;
if Alot_Gadgets_DLittle=1 then Gad=2;
if Alot_Gadgets_DLot=1 then Gad=1;
if Buy_Gad_and_App_ALot=1 then Gad_app=5;
if Buy_Gad_and_App_ALittle=1 then Gad_app=4;
if Buy_Gad_and_App_NEDI=1 then Gad_app=3;
if Buy_Gad_and_App_DLittle=1 then Gad_app=2;
if Buy_Gad_and_App_DLot=1 then Gad_app=1;

if Want_More_COS_ALot = 1 then WMC=5;
if Want_More_COS_ALittle = 1 then WMC=4;
if Want_More_COS_NEDI=1 then WMC=3;
if Want_More_COS_DLittle=1 then WMC=2;
if Want_More_COS_DLot=1 then WMC=1;

if INFO_ME_ALot=1 then PINFO=5;
if INFO_ME_ALittle=1 then PINFO=4;
if INFO_ME_NEDI =1 then PINFO=3;
if INFO_ME_DLittle =1 then PINFO=2;
if INFO_ME_DLot =1 then PINFO=1;

if RISKY_INFO_ALot=1 then RISKY=5;
if RISKY_INFO_ALittle=1 then RISKY=4;
if RISKY_INFO_NEDI=1 then RISKY=3;
if RISKY_INFO_DLittle=1 then RISKY=2;
if RISKY_INFO_DLot=1 then RISKY=1;

if Companies_Priv_ALot=1 then Priv=5;
if Companies_Priv_ALittle=1 then Priv=4;
if Companies_Priv_NEDI=1 then Priv=3;
if Companies_Priv_DLittle=1 then Priv=2;
if Companies_Priv_DLot=1 then Priv=1;

if Net_Free_Time_ALot=1 then Net_Free=5;
if Net_Free_Time_ALittle=1 then Net_Free=4;
if Net_Free_Time_NEDI=1 then Net_Free=3;
if Net_Free_Time_DLittle=1 then Net_Free=2;
if Net_Free_Time_DLot=1 then Net_Free=1;

if NET_Plan_Travel_ALot=1 then Net_Travel=5;
if NET_Plan_Travel_ALittle=1 then Net_Travel=4;
if NET_Plan_Travel_NEDI=1 then Net_Travel=3;
if NET_Plan_Travel_DLittle=1 then Net_Travel=2;
if NET_Plan_Travel_DLot=1 then Net_Travel=1;

if NET_Change_Work_ALot=1 then Net_Work=5;
```

```
            if NET_Change_Work_ALittle=1 then Net_Work=4;
            if NET_Change_Work_NEDI=1 then Net_Work=3;
            if NET_Change_Work_DLittle=1 then Net_Work=2;
            if NET_Change_Work_DLot=1 then Net_Work=1;

            if Comp_Source_Fun_ALot=1 then Comp_Fun=5;
            if Comp_Source_Fun_ALittle=1 then Comp_Fun=4;
            if Comp_Source_Fun_NEDI=1 then Comp_Fun=3;
            if Comp_Source_Fun_DLittle=1 then Comp_Fun=2;
            if Comp_Source_Fun_DLot=1 then Comp_Fun=1;

            if IPHONE = .   then phone = 0;
            if IPHONE = 1 then phone = 1;

            if Samsung =. then SPhone=0;
            if Samsung=1 then SPhone=1;
            if Male=. then MGender=0;
            if Male=1 then MGender=1;
            if Female=. then FGender=0;
            if Female=1 then FGender=1;
            if Parent_Guardian_Yes=. then PG_Yes=0;
            if Parent_Guardian_Yes=1 then PG_Yes=1;
            if Parent_Guardian_No=. then PG_No=0;
            if Parent_Guardian_No=1 then PG_No=1;
            if Born_In_US_Yes=. then US_Yes=0;
            if Born_In_US_Yes=1 then US_Yes=1;
            if Born_In_US_No=. then US_No=0;
            if Born_In_US_No=1 then US_No=1;
            if Lyl_To_Co_Add_Spanish_ALot=1 then Add_Spanish=5;
            if Lyl_To_Co_Add_Spanish_ALittle=1 then Add_Spanish=4;
            if Lyl_To_Comp_Add_Spanish_NEDI=1 then Add_Spanish=3;
            if Lyl_To_Comp_Add_Spanish_DLittle=1 then Add_Spanish=2;
            if Lyl_To_Co_Add_Spanish_DLot=1 then Add_Spanish=1;

run;
proc freq data=myvars;
   tables

      Pay_any_elec_ALot
      Pay_any_elec_ALittle
      Pay_any_elec_NEDI
      Pay_any_elec_DLittle
      Pay_any_elec_DLot
      Keep_Up_Tech_ALot
      Keep_Up_Tech_ALittle
      Keep_Up_Tech_NEDI
      Keep_Up_Tech_DLittle
      Keep_Up_Tech_DLot
      Alot_Gadgets_ALot
      Alot_Gadgets_ALittle
      Alot_Gadgets_NEDI
      Alot_Gadgets_DLittle
      Alot_Gadgets_DLot
      Buy_Gad_and_App_ALot
```

```
Buy_Gad_and_App_ALittle
Buy_Gad_and_App_NEDI
Buy_Gad_and_App_DLittle
Buy_Gad_and_App_DLot


Want_More_COS_ALot
Want_More_COS_ALittle
Want_More_COS_NEDI
Want_More_COS_DLittle
Want_More_COS_DLot
INFO_Me_ALot
INFO_ME_ALittle
INFO_ME_NEDI
INFO_ME_DLittle
INFO_ME_DLot
RISKY_INFO_ALot
RISKY_INFO_ALittle
RISKY_INFO_NEDI
RISKY_INFO_DLittle
RISKY_INFO_DLot
Companies_Priv_ALot
Companies_Priv_ALittle
Companies_Priv_NEDI
Companies_Priv_DLittle
Companies_Priv_DLot


Net_Free_Time_ALot
Net_Free_Time_ALittle
Net_Free_Time_NEDI
Net_Free_Time_DLittle
Net_Free_Time_DLot
NET_Plan_Travel_ALot
NET_Plan_Travel_ALittle
NET_Plan_Travel_NEDI
NET_Plan_Travel_DLittle
NET_Plan_Travel_DLot
NET_Change_Work_ALot
NET_Change_Work_ALittle
NET_Change_Work_NEDI
NET_Change_Work_DLittle
NET_Change_Work_DLot
Comp_Source_Fun_ALot
Comp_Source_Fun_ALittle
Comp_Source_Fun_NEDI
Comp_Source_Fun_DLittle
Comp_Source_Fun_DLot


Pay_Any
Up_Tech
Gad
Gad_app


WMC
```

```
        PINFO
        RISKY
        Priv

        Net_Free
        Net_Travel
        Net_Work
        Comp_Fun

        phone

        Samsung
        Male
        Female
        Parent_Guardian_Yes
        Parent_Guardian_No
        Born_In_US_Yes
        Born_In_US_No
        Lyl_To_Co_Add_Spanish_ALot
        Lyl_To_Co_Add_Spanish_ALittle
        Lyl_To_Co_Add_Spanish_NEDI
        Lyl_To_Co_Add_Spanish_DLittle
        Lyl_To_Co_Add_Spanish_DLot
        SPhone
        MGender
        FGender
        PG_No
        PG_Yes
        US_No
        US_Yes
        Add_Spanish;

run;


libname mylib 'P:\';
data myfactor;
        set myvars;
run;

proc factor data = myfactor
        maxiter=100
        method=principal
        mineigen=1
        rotate=varimax
        nfactors=2
        msa
        scree
        score
        print
        out=myscores;
        var
                    WMC
                    PINFO
```

```
                    RISKY
                    Priv

                    Net_Free
                    Net_Travel
                    Net_Work
                    Comp_Fun

                    SPhone
                    MGender
                    FGender
                    PG_No
                    PG_Yes
                    US_No
                    US_Yes
                    Add_Spanish;
run;

data clusready;
set myscores;
rename factor1 = Int_Change_Life;
rename factor2 = Comp_Personal_Info;
rename myid = resp_id;
run;
proc hpclus data=clusready maxclusters=9
noc=abc(b=20 minclusters=2 align=pca criterion=firstpeak);
score out=mycluster;
input
Int_Change_Life
Comp_Personal_Info
Pay_Any
Up_Tech
Gad
Gad_app
SPhone
MGender
FGender
PG_No
PG_Yes
US_No
US_Yes
Add_Spanish
/ level=interval;
id resp_id
Pay_Any
Up_Tech
Gad
Gad_app
WMC
PINFO
RISKY
Priv
Net_Free
Net_Travel
```

```
Net_Work
Comp_Fun
SPhone
MGender
FGender
PG_No
PG_Yes
US_No
US_Yes
Add_Spanish;
run;

proc contents data=mycluster;
run;
proc sort data=mycluster out=mysort;
by _CLUSTER_ID_ ;
proc means data=mysort;
by _CLUSTER_ID_;
var
Pay_Any
Up_Tech
Gad
Gad_app
WMC
PINFO
RISKY
Priv
Net_Free
Net_Travel
Net_Work
Comp_Fun
SPhone
MGender
FGender
PG_No
PG_Yes
US_No
US_Yes
Add_Spanish;
run;
```