# C:\Users\aj\OneDrive\바탕 화면\SPSS 동영상 강의\분석결과\고차요인분석\_잠재변수기준.amw

## Analysis Summary

## Date and Time

Date: 2024년 8월 24일 토요일

Time: 오후 9:12:43

## Title

고차요인분석\_잠재변수기준: 2024년 8월 24일 토요일 오후 9:12

## Groups

## Group number 1 (Group number 1)

## Notes for Group (Group number 1)

The model is recursive.

Sample size = 325

## Variable Summary (Group number 1)

## Your model contains the following variables (Group number 1)

Observed, endogenous variables

외관3

외관2

외관1

편의성3

편의성2

편의성1

유용성3

유용성2

유용성1

Unobserved, endogenous variables

외관

편의성

유용성

Unobserved, exogenous variables

e3

e2

e1

e6

e5

e4

e9

e8

e7

효용성

d1

d2

d3

## Variable counts (Group number 1)

|  |  |
| --- | --- |
| **Number of variables in your model:** | 25 |
| **Number of observed variables:** | 9 |
| **Number of unobserved variables:** | 16 |
| **Number of exogenous variables:** | 13 |
| **Number of endogenous variables:** | 12 |

## Parameter Summary (Group number 1)

|  | **Weights** | **Covariances** | **Variances** | **Means** | **Intercepts** | **Total** |
| --- | --- | --- | --- | --- | --- | --- |
| **Fixed** | 16 | 0 | 0 | 0 | 0 | 16 |
| **Labeled** | 0 | 0 | 0 | 0 | 0 | 0 |
| **Unlabeled** | 8 | 0 | 13 | 0 | 0 | 21 |
| **Total** | 24 | 0 | 13 | 0 | 0 | 37 |

## Models

## Default model (Default model)

## Notes for Model (Default model)

## Computation of degrees of freedom (Default model)

|  |  |
| --- | --- |
| **Number of distinct sample moments:** | 45 |
| **Number of distinct parameters to be estimated:** | 21 |
| **Degrees of freedom (45 - 21):** | 24 |

## Result (Default model)

Minimum was achieved

Chi-square = 24.936

Degrees of freedom = 24

Probability level = .409

## Group number 1 (Group number 1 - Default model)

## Estimates (Group number 1 - Default model)

## Scalar Estimates (Group number 1 - Default model)

## Maximum Likelihood Estimates

## Regression Weights: (Group number 1 - Default model)

|  |  |  | **Estimate** | **S.E.** | **C.R.** | **P** | **Label** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 외관 | <--- | 효용성 | 1.000 |  |  |  |  |
| 편의성 | <--- | 효용성 | 2.502 | 1.886 | 1.326 | .185 |  |
| 유용성 | <--- | 효용성 | .682 | .349 | 1.956 | .050 |  |
| 외관3 | <--- | 외관 | 1.000 |  |  |  |  |
| 외관2 | <--- | 외관 | 1.211 | .072 | 16.735 | \*\*\* |  |
| 외관1 | <--- | 외관 | 1.204 | .074 | 16.355 | \*\*\* |  |
| 편의성3 | <--- | 편의성 | 1.000 |  |  |  |  |
| 편의성2 | <--- | 편의성 | 1.109 | .033 | 34.045 | \*\*\* |  |
| 편의성1 | <--- | 편의성 | 1.038 | .035 | 29.459 | \*\*\* |  |
| 유용성3 | <--- | 유용성 | 1.000 |  |  |  |  |
| 유용성2 | <--- | 유용성 | .849 | .090 | 9.421 | \*\*\* |  |
| 유용성1 | <--- | 유용성 | .818 | .087 | 9.403 | \*\*\* |  |

## Standardized Regression Weights: (Group number 1 - Default model)

|  |  |  | **Estimate** |
| --- | --- | --- | --- |
| 외관 | <--- | 효용성 | .321 |
| 편의성 | <--- | 효용성 | .546 |
| 유용성 | <--- | 효용성 | .297 |
| 외관3 | <--- | 외관 | .788 |
| 외관2 | <--- | 외관 | .899 |
| 외관1 | <--- | 외관 | .854 |
| 편의성3 | <--- | 편의성 | .941 |
| 편의성2 | <--- | 편의성 | .952 |
| 편의성1 | <--- | 편의성 | .909 |
| 유용성3 | <--- | 유용성 | .744 |
| 유용성2 | <--- | 유용성 | .707 |
| 유용성1 | <--- | 유용성 | .698 |

## Variances: (Group number 1 - Default model)

|  |  |  | **Estimate** | **S.E.** | **C.R.** | **P** | **Label** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **효용성** |  |  | .050 | .043 | 1.163 | .245 |  |
| **d1** |  |  | .434 | .066 | 6.552 | \*\*\* |  |
| **d2** |  |  | .736 | .252 | 2.919 | .004 |  |
| **d3** |  |  | .241 | .042 | 5.721 | \*\*\* |  |
| **e3** |  |  | .296 | .029 | 10.031 | \*\*\* |  |
| **e2** |  |  | .169 | .030 | 5.702 | \*\*\* |  |
| **e1** |  |  | .260 | .033 | 7.819 | \*\*\* |  |
| **e6** |  |  | .135 | .018 | 7.532 | \*\*\* |  |
| **e5** |  |  | .133 | .021 | 6.445 | \*\*\* |  |
| **e4** |  |  | .237 | .024 | 9.769 | \*\*\* |  |
| **e9** |  |  | .213 | .029 | 7.330 | \*\*\* |  |
| **e8** |  |  | .190 | .023 | 8.354 | \*\*\* |  |
| **e7** |  |  | .186 | .022 | 8.588 | \*\*\* |  |

## Minimization History (Default model)

| **Iteration** |  | **Negative eigenvalues** | **Condition #** | **Smallest eigenvalue** | **Diameter** | **F** | **NTries** | **Ratio** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **0** | e | 7 |  | -.511 | 9999.000 | 1953.098 | 0 | 9999.000 |
| **1** | e\* | 7 |  | -.745 | 2.207 | 838.196 | 20 | .596 |
| **2** | e | 4 |  | -.355 | .364 | 541.640 | 7 | .960 |
| **3** | e | 1 |  | -.081 | .334 | 384.062 | 5 | .630 |
| **4** | e | 0 | 12763.642 |  | .601 | 164.688 | 6 | .842 |
| **5** | e | 1 |  | -.003 | .567 | 99.117 | 4 | .000 |
| **6** | e | 1 |  | -.012 | .540 | 41.766 | 8 | .902 |
| **7** | e | 0 | 3681.842 |  | .408 | 29.629 | 7 | .981 |
| **8** | e | 0 | 1108.382 |  | .382 | 29.346 | 2 | .000 |
| **9** | e | 1 |  | -.028 | .578 | 28.199 | 1 | .282 |
| **10** | e | 0 | 3474.194 |  | .076 | 25.813 | 8 | .839 |
| **11** | e | 0 | 4360.027 |  | .454 | 25.192 | 1 | 1.036 |
| **12** | e | 0 | 13608.846 |  | .236 | 24.976 | 1 | 1.064 |
| **13** | e | 0 | 12940.823 |  | .252 | 24.950 | 1 | .618 |
| **14** | e | 0 | 21026.846 |  | .030 | 24.936 | 1 | .983 |
| **15** | e | 0 | 20268.537 |  | .010 | 24.936 | 1 | .986 |
| **16** | e | 0 | 20362.051 |  | .000 | 24.936 | 1 | 1.000 |

## Model Fit Summary

## CMIN

| **Model** | **NPAR** | **CMIN** | **DF** | **P** | **CMIN/DF** |
| --- | --- | --- | --- | --- | --- |
| **Default model** | 21 | 24.936 | 24 | .409 | 1.039 |
| **Saturated model** | 45 | .000 | 0 |  |  |
| **Independence model** | 9 | 1841.161 | 36 | .000 | 51.143 |

## RMR, GFI

| **Model** | **RMR** | **GFI** | **AGFI** | **PGFI** |
| --- | --- | --- | --- | --- |
| **Default model** | .023 | .984 | .970 | .525 |
| **Saturated model** | .000 | 1.000 |  |  |
| **Independence model** | .353 | .474 | .342 | .379 |

## Baseline Comparisons

| **Model** | **NFI Delta1** | **RFI rho1** | **IFI Delta2** | **TLI rho2** | **CFI** |
| --- | --- | --- | --- | --- | --- |
| **Default model** | .986 | .980 | .999 | .999 | .999 |
| **Saturated model** | 1.000 |  | 1.000 |  | 1.000 |
| **Independence model** | .000 | .000 | .000 | .000 | .000 |

## Parsimony-Adjusted Measures

| **Model** | **PRATIO** | **PNFI** | **PCFI** |
| --- | --- | --- | --- |
| **Default model** | .667 | .658 | .666 |
| **Saturated model** | .000 | .000 | .000 |
| **Independence model** | 1.000 | .000 | .000 |

## NCP

| **Model** | **NCP** | **LO 90** | **HI 90** |
| --- | --- | --- | --- |
| **Default model** | .936 | .000 | 17.085 |
| **Saturated model** | .000 | .000 | .000 |
| **Independence model** | 1805.161 | 1668.327 | 1949.353 |

## FMIN

| **Model** | **FMIN** | **F0** | **LO 90** | **HI 90** |
| --- | --- | --- | --- | --- |
| **Default model** | .077 | .003 | .000 | .053 |
| **Saturated model** | .000 | .000 | .000 | .000 |
| **Independence model** | 5.683 | 5.571 | 5.149 | 6.017 |

## RMSEA

| **Model** | **RMSEA** | **LO 90** | **HI 90** | **PCLOSE** |
| --- | --- | --- | --- | --- |
| **Default model** | .011 | .000 | .047 | .968 |
| **Independence model** | .393 | .378 | .409 | .000 |

## AIC

| **Model** | **AIC** | **BCC** | **BIC** | **CAIC** |
| --- | --- | --- | --- | --- |
| **Default model** | 66.936 | 68.273 | 146.396 | 167.396 |
| **Saturated model** | 90.000 | 92.866 | 260.272 | 305.272 |
| **Independence model** | 1859.161 | 1859.734 | 1893.216 | 1902.216 |

## ECVI

| **Model** | **ECVI** | **LO 90** | **HI 90** | **MECVI** |
| --- | --- | --- | --- | --- |
| **Default model** | .207 | .204 | .256 | .211 |
| **Saturated model** | .278 | .278 | .278 | .287 |
| **Independence model** | 5.738 | 5.316 | 6.183 | 5.740 |

## HOELTER

| **Model** | **HOELTER .05** | **HOELTER .01** |
| --- | --- | --- |
| **Default model** | 474 | 559 |
| **Independence model** | 9 | 11 |

## Execution time summary

|  |  |
| --- | --- |
| **Minimization:** | .045 |
| **Miscellaneous:** | .958 |
| **Bootstrap:** | .000 |
| **Total:** | 1.003 |