**Factor Analysis**

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| **Notes** |  |  |
| Output Created |  | 06-SEP-2025 01:43:16 |
| Comments |  |  |
| Input | Data | C:\Users\DanhSakai\Desktop\SPSSFileDatav1.sav |
| Active Dataset | DataSet1 |
| Filter | <none> |
| Weight | <none> |
| Split File | <none> |
| N of Rows in Working Data File | 129 |
| Missing Value Handling | Definition of Missing | MISSING=EXCLUDE: User-defined missing values are treated as missing. |
| Cases Used | LISTWISE: Statistics are based on cases with no missing values for any variable used. |
| Syntax |  | FACTOR /VARIABLES HT1 HT3 TB1 TB2 TB3 PC1 PC2 PC3 KH1 KH2 NS1 NS3 LCV3 TCT2 TCT3 HQVH3 /MISSING LISTWISE /ANALYSIS HT1 HT3 TB1 TB2 TB3 PC1 PC2 PC3 KH1 KH2 NS1 NS3 LCV3 TCT2 TCT3 HQVH3 /PRINT INITIAL KMO COVARIANCE EXTRACTION /FORMAT SORT BLANK(.4) /CRITERIA KAISER MINEIGEN(1) ITERATE(25) /EXTRACTION PC /ROTATION NOROTATE /METHOD=CORRELATION. |
| Resources | Processor Time | 00:00:00.02 |
| Elapsed Time | 00:00:00.03 |
| Maximum Memory Required | 32144 (31.391K) bytes |

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| **Covariance Matrix** |  |  |  |  |  |  |  |  |
|  | HT1 | HT3 | TB1 | TB2 | TB3 | PC1 | PC2 | PC3 |
| HT1 | .302 | .167 | .059 | .094 | .029 | .176 | .126 | .152 |
| HT3 | .167 | .517 | .049 | .184 | .102 | .189 | .221 | .270 |
| TB1 | .059 | .049 | .425 | .170 | .160 | .062 | .041 | .067 |
| TB2 | .094 | .184 | .170 | .590 | .304 | .123 | .120 | .258 |
| TB3 | .029 | .102 | .160 | .304 | .928 | .060 | .009 | .130 |
| PC1 | .176 | .189 | .062 | .123 | .060 | .354 | .206 | .206 |
| PC2 | .126 | .221 | .041 | .120 | .009 | .206 | .434 | .204 |
| PC3 | .152 | .270 | .067 | .258 | .130 | .206 | .204 | .486 |
| KH1 | .093 | .127 | .082 | .102 | .181 | .151 | .126 | .138 |
| KH2 | .098 | .230 | .117 | .218 | .239 | .165 | .188 | .239 |
| NS1 | .137 | .205 | .093 | .186 | .099 | .167 | .198 | .230 |
| NS3 | .041 | .156 | .060 | .166 | .164 | .086 | .105 | .168 |
| LCV3 | .066 | .113 | -.004 | .108 | .139 | .083 | .113 | .110 |
| TCT2 | .104 | .246 | .081 | .170 | .116 | .116 | .194 | .231 |
| TCT3 | .049 | .250 | .087 | .197 | .209 | .051 | .166 | .216 |
| HQVH3 | .084 | .123 | .092 | .153 | .096 | .084 | .157 | .118 |

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| **Covariance Matrix** |  |  |  |  |  |  |  |  |
|  | KH1 | KH2 | NS1 | NS3 | LCV3 | TCT2 | TCT3 | HQVH3 |
| HT1 | .093 | .098 | .137 | .041 | .066 | .104 | .049 | .084 |
| HT3 | .127 | .230 | .205 | .156 | .113 | .246 | .250 | .123 |
| TB1 | .082 | .117 | .093 | .060 | -.004 | .081 | .087 | .092 |
| TB2 | .102 | .218 | .186 | .166 | .108 | .170 | .197 | .153 |
| TB3 | .181 | .239 | .099 | .164 | .139 | .116 | .209 | .096 |
| PC1 | .151 | .165 | .167 | .086 | .083 | .116 | .051 | .084 |
| PC2 | .126 | .188 | .198 | .105 | .113 | .194 | .166 | .157 |
| PC3 | .138 | .239 | .230 | .168 | .110 | .231 | .216 | .118 |
| KH1 | .355 | .228 | .159 | .122 | .092 | .131 | .194 | .159 |
| KH2 | .228 | .535 | .188 | .179 | .166 | .241 | .397 | .241 |
| NS1 | .159 | .188 | .370 | .196 | .107 | .170 | .208 | .154 |
| NS3 | .122 | .179 | .196 | .350 | .162 | .118 | .206 | .107 |
| LCV3 | .092 | .166 | .107 | .162 | .324 | .106 | .207 | .125 |
| TCT2 | .131 | .241 | .170 | .118 | .106 | .460 | .271 | .166 |
| TCT3 | .194 | .397 | .208 | .206 | .207 | .271 | .719 | .233 |
| HQVH3 | .159 | .241 | .154 | .107 | .125 | .166 | .233 | .360 |

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| **KMO and Bartlett's Test** |  |  |
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. |  | .872 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 801.567 |
| df | 120 |
| Sig. | <.001 |

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| **Communalities** |  |  |
|  | Initial | Extraction |
| HT1 | 1.000 | .591 |
| HT3 | 1.000 | .545 |
| TB1 | 1.000 | .605 |
| TB2 | 1.000 | .562 |
| TB3 | 1.000 | .577 |
| PC1 | 1.000 | .678 |
| PC2 | 1.000 | .589 |
| PC3 | 1.000 | .573 |
| KH1 | 1.000 | .406 |
| KH2 | 1.000 | .650 |
| NS1 | 1.000 | .577 |
| NS3 | 1.000 | .467 |
| LCV3 | 1.000 | .496 |
| TCT2 | 1.000 | .460 |
| TCT3 | 1.000 | .686 |
| HQVH3 | 1.000 | .454 |

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| Extraction Method: Principal Component Analysis. |  |  |

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| **Total Variance Explained** |  |  |  |  |  |  |
| Component | Initial Eigenvalues |  |  | Extraction Sums of Squared Loadings |  |  |
| Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 6.096 | 38.102 | 38.102 | 6.096 | 38.102 | 38.102 |
| 2 | 1.591 | 9.943 | 48.044 | 1.591 | 9.943 | 48.044 |
| 3 | 1.226 | 7.663 | 55.708 | 1.226 | 7.663 | 55.708 |
| 4 | .992 | 6.197 | 61.905 |  |  |  |
| 5 | .923 | 5.771 | 67.676 |  |  |  |
| 6 | .764 | 4.773 | 72.449 |  |  |  |
| 7 | .685 | 4.282 | 76.731 |  |  |  |
| 8 | .604 | 3.777 | 80.508 |  |  |  |
| 9 | .553 | 3.455 | 83.964 |  |  |  |
| 10 | .501 | 3.132 | 87.096 |  |  |  |
| 11 | .453 | 2.831 | 89.927 |  |  |  |
| 12 | .404 | 2.528 | 92.455 |  |  |  |
| 13 | .353 | 2.205 | 94.659 |  |  |  |
| 14 | .324 | 2.023 | 96.682 |  |  |  |
| 15 | .294 | 1.839 | 98.521 |  |  |  |
| 16 | .237 | 1.479 | 100.000 |  |  |  |

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| Extraction Method: Principal Component Analysis. |  |  |  |  |  |  |

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| **Component Matrix**a |  |  |  |
|  | Component |  |  |
| 1 | 2 | 3 |
| KH2 | .761 |  |  |
| NS1 | .745 |  |  |
| PC3 | .721 |  |  |
| HT3 | .684 |  |  |
| TCT2 | .665 |  |  |
| TCT3 | .647 |  |  |
| PC2 | .637 |  |  |
| HQVH3 | .633 |  |  |
| KH1 | .629 |  |  |
| NS3 | .620 |  |  |
| PC1 | .610 | -.519 |  |
| TB2 | .587 |  | .411 |
| LCV3 | .543 |  |  |
| TB3 |  | .538 |  |
| HT1 | .512 | -.530 |  |
| TB1 |  |  | .671 |

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| Extraction Method: Principal Component Analysis.a |  |  |  |
| a. 3 components extracted. |  |  |  |

**Factor Analysis**

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| **Notes** |  |  |
| Output Created |  | 06-SEP-2025 01:52:18 |
| Comments |  |  |
| Input | Data | C:\Users\DanhSakai\Desktop\SPSSFileDatav1.sav |
| Active Dataset | DataSet1 |
| Filter | <none> |
| Weight | <none> |
| Split File | <none> |
| N of Rows in Working Data File | 129 |
| Missing Value Handling | Definition of Missing | MISSING=EXCLUDE: User-defined missing values are treated as missing. |
| Cases Used | LISTWISE: Statistics are based on cases with no missing values for any variable used. |
| Syntax |  | FACTOR /VARIABLES HT1 HT3 TB1 TB2 TB3 PC1 PC2 PC3 KH1 KH2 NS1 NS3 LCV3 TCT2 TCT3 HQVH3 /MISSING LISTWISE /ANALYSIS HT1 HT3 TB1 TB2 TB3 PC1 PC2 PC3 KH1 KH2 NS1 NS3 LCV3 TCT2 TCT3 HQVH3 /PRINT INITIAL KMO COVARIANCE EXTRACTION ROTATION FSCORE /FORMAT SORT BLANK(.4) /CRITERIA MINEIGEN(1) ITERATE(25) /EXTRACTION PC /CRITERIA KAISER ITERATE(25) /ROTATION VARIMAX /METHOD=CORRELATION. |
| Resources | Processor Time | 00:00:00.00 |
| Elapsed Time | 00:00:00.02 |
| Maximum Memory Required | 32144 (31.391K) bytes |

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| **Covariance Matrix** |  |  |  |  |  |  |  |  |
|  | HT1 | HT3 | TB1 | TB2 | TB3 | PC1 | PC2 | PC3 |
| HT1 | .302 | .167 | .059 | .094 | .029 | .176 | .126 | .152 |
| HT3 | .167 | .517 | .049 | .184 | .102 | .189 | .221 | .270 |
| TB1 | .059 | .049 | .425 | .170 | .160 | .062 | .041 | .067 |
| TB2 | .094 | .184 | .170 | .590 | .304 | .123 | .120 | .258 |
| TB3 | .029 | .102 | .160 | .304 | .928 | .060 | .009 | .130 |
| PC1 | .176 | .189 | .062 | .123 | .060 | .354 | .206 | .206 |
| PC2 | .126 | .221 | .041 | .120 | .009 | .206 | .434 | .204 |
| PC3 | .152 | .270 | .067 | .258 | .130 | .206 | .204 | .486 |
| KH1 | .093 | .127 | .082 | .102 | .181 | .151 | .126 | .138 |
| KH2 | .098 | .230 | .117 | .218 | .239 | .165 | .188 | .239 |
| NS1 | .137 | .205 | .093 | .186 | .099 | .167 | .198 | .230 |
| NS3 | .041 | .156 | .060 | .166 | .164 | .086 | .105 | .168 |
| LCV3 | .066 | .113 | -.004 | .108 | .139 | .083 | .113 | .110 |
| TCT2 | .104 | .246 | .081 | .170 | .116 | .116 | .194 | .231 |
| TCT3 | .049 | .250 | .087 | .197 | .209 | .051 | .166 | .216 |
| HQVH3 | .084 | .123 | .092 | .153 | .096 | .084 | .157 | .118 |

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| **Covariance Matrix** |  |  |  |  |  |  |  |  |
|  | KH1 | KH2 | NS1 | NS3 | LCV3 | TCT2 | TCT3 | HQVH3 |
| HT1 | .093 | .098 | .137 | .041 | .066 | .104 | .049 | .084 |
| HT3 | .127 | .230 | .205 | .156 | .113 | .246 | .250 | .123 |
| TB1 | .082 | .117 | .093 | .060 | -.004 | .081 | .087 | .092 |
| TB2 | .102 | .218 | .186 | .166 | .108 | .170 | .197 | .153 |
| TB3 | .181 | .239 | .099 | .164 | .139 | .116 | .209 | .096 |
| PC1 | .151 | .165 | .167 | .086 | .083 | .116 | .051 | .084 |
| PC2 | .126 | .188 | .198 | .105 | .113 | .194 | .166 | .157 |
| PC3 | .138 | .239 | .230 | .168 | .110 | .231 | .216 | .118 |
| KH1 | .355 | .228 | .159 | .122 | .092 | .131 | .194 | .159 |
| KH2 | .228 | .535 | .188 | .179 | .166 | .241 | .397 | .241 |
| NS1 | .159 | .188 | .370 | .196 | .107 | .170 | .208 | .154 |
| NS3 | .122 | .179 | .196 | .350 | .162 | .118 | .206 | .107 |
| LCV3 | .092 | .166 | .107 | .162 | .324 | .106 | .207 | .125 |
| TCT2 | .131 | .241 | .170 | .118 | .106 | .460 | .271 | .166 |
| TCT3 | .194 | .397 | .208 | .206 | .207 | .271 | .719 | .233 |
| HQVH3 | .159 | .241 | .154 | .107 | .125 | .166 | .233 | .360 |

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| **KMO and Bartlett's Test** |  |  |
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. |  | .872 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 801.567 |
| df | 120 |
| Sig. | <.001 |

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| **Communalities** |  |  |
|  | Initial | Extraction |
| HT1 | 1.000 | .591 |
| HT3 | 1.000 | .545 |
| TB1 | 1.000 | .605 |
| TB2 | 1.000 | .562 |
| TB3 | 1.000 | .577 |
| PC1 | 1.000 | .678 |
| PC2 | 1.000 | .589 |
| PC3 | 1.000 | .573 |
| KH1 | 1.000 | .406 |
| KH2 | 1.000 | .650 |
| NS1 | 1.000 | .577 |
| NS3 | 1.000 | .467 |
| LCV3 | 1.000 | .496 |
| TCT2 | 1.000 | .460 |
| TCT3 | 1.000 | .686 |
| HQVH3 | 1.000 | .454 |

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| Extraction Method: Principal Component Analysis. |  |  |

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| **Total Variance Explained** |  |  |  |  |  |  |
| Component | Initial Eigenvalues |  |  | Extraction Sums of Squared Loadings |  |  |
| Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 6.096 | 38.102 | 38.102 | 6.096 | 38.102 | 38.102 |
| 2 | 1.591 | 9.943 | 48.044 | 1.591 | 9.943 | 48.044 |
| 3 | 1.226 | 7.663 | 55.708 | 1.226 | 7.663 | 55.708 |
| 4 | .992 | 6.197 | 61.905 |  |  |  |
| 5 | .923 | 5.771 | 67.676 |  |  |  |
| 6 | .764 | 4.773 | 72.449 |  |  |  |
| 7 | .685 | 4.282 | 76.731 |  |  |  |
| 8 | .604 | 3.777 | 80.508 |  |  |  |
| 9 | .553 | 3.455 | 83.964 |  |  |  |
| 10 | .501 | 3.132 | 87.096 |  |  |  |
| 11 | .453 | 2.831 | 89.927 |  |  |  |
| 12 | .404 | 2.528 | 92.455 |  |  |  |
| 13 | .353 | 2.205 | 94.659 |  |  |  |
| 14 | .324 | 2.023 | 96.682 |  |  |  |
| 15 | .294 | 1.839 | 98.521 |  |  |  |
| 16 | .237 | 1.479 | 100.000 |  |  |  |

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| **Total Variance Explained** |  |  |  |
| Component | Rotation Sums of Squared Loadings |  |  |
| Total | % of Variance | Cumulative % |
| 1 | 3.644 | 22.773 | 22.773 |
| 2 | 3.402 | 21.260 | 44.033 |
| 3 | 1.868 | 11.674 | 55.708 |
| 4 |  |  |  |
| 5 |  |  |  |
| 6 |  |  |  |
| 7 |  |  |  |
| 8 |  |  |  |
| 9 |  |  |  |
| 10 |  |  |  |
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| Extraction Method: Principal Component Analysis. |  |  |  |

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| **Component Matrix**a |  |  |  |
|  | Component |  |  |
| 1 | 2 | 3 |
| KH2 | .761 |  |  |
| NS1 | .745 |  |  |
| PC3 | .721 |  |  |
| HT3 | .684 |  |  |
| TCT2 | .665 |  |  |
| TCT3 | .647 |  |  |
| PC2 | .637 |  |  |
| HQVH3 | .633 |  |  |
| KH1 | .629 |  |  |
| NS3 | .620 |  |  |
| PC1 | .610 | -.519 |  |
| TB2 | .587 |  | .411 |
| LCV3 | .543 |  |  |
| TB3 |  | .538 |  |
| HT1 | .512 | -.530 |  |
| TB1 |  |  | .671 |

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| Extraction Method: Principal Component Analysis.a |  |  |  |
| a. 3 components extracted. |  |  |  |

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| **Rotated Component Matrix**a |  |  |  |
|  | Component |  |  |
| 1 | 2 | 3 |
| TCT3 | .817 |  |  |
| KH2 | .699 |  |  |
| LCV3 | .693 |  |  |
| NS3 | .621 |  |  |
| HQVH3 | .601 |  |  |
| TCT2 | .521 | .420 |  |
| KH1 | .453 |  |  |
| PC1 |  | .810 |  |
| HT1 |  | .760 |  |
| PC2 |  | .671 |  |
| PC3 |  | .634 |  |
| HT3 |  | .620 |  |
| NS1 | .429 | .588 |  |
| TB1 |  |  | .763 |
| TB3 |  |  | .684 |
| TB2 |  |  | .638 |

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| Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a |  |  |  |
| a. Rotation converged in 5 iterations. |  |  |  |

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| **Component Transformation Matrix** |  |  |  |
| Component | 1 | 2 | 3 |
| 1 | .693 | .636 | .341 |
| 2 | .469 | -.756 | .456 |
| 3 | -.548 | .156 | .822 |

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| Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. |  |  |  |

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| **Component Score Coefficient Matrix** |  |  |  |
|  | Component |  |  |
| 1 | 2 | 3 |
| HT1 | -.196 | .333 | .024 |
| HT3 | .040 | .185 | -.097 |
| TB1 | -.198 | .016 | .531 |
| TB2 | -.052 | .009 | .371 |
| TB3 | .035 | -.168 | .427 |
| PC1 | -.168 | .335 | .012 |
| PC2 | .037 | .229 | -.196 |
| PC3 | -.017 | .188 | .032 |
| KH1 | .078 | .028 | .092 |
| KH2 | .206 | -.050 | .042 |
| NS1 | .027 | .151 | .023 |
| NS3 | .205 | -.074 | .021 |
| LCV3 | .301 | -.096 | -.171 |
| TCT2 | .127 | .064 | -.058 |
| TCT3 | .340 | -.162 | -.078 |
| HQVH3 | .189 | -.038 | -.008 |

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| Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. |  |  |  |

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| **Component Score Covariance Matrix** |  |  |  |
| Component | 1 | 2 | 3 |
| 1 | 1.000 | .000 | .000 |
| 2 | .000 | 1.000 | .000 |
| 3 | .000 | .000 | 1.000 |

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| Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. |  |  |  |