**Άσκηση**

Οι παρακάτω πίνακες είναι τα αποτελέσματα Παραγοντικής Ανάλυσης (Factor Analysis).

| **KMO and Bartlett's Test** | | |
| --- | --- | --- |
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | ,800 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 3597,272 |
| df | 136 |
| Sig. | ,000 |

| **Total Variance Explained** | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | | Rotation Sums of Squared Loadings | | |
| Total | % of  Variance | Cumulative  % | Total | % of  Variance | Cumulative  % | Total | % of  Variance | Cumulative  % |
| 1 | 4,398 | 25,868 | 25,868 | 4,398 | 25,868 | 25,868 | 2,655 | 15,616 | 15,616 |
| 2 | 2,705 | 15,911 | 41,780 | 2,705 | 15,911 | 41,780 | 2,640 | 15,530 | 31,146 |
| 3 | 1,839 | 10,817 | 52,596 | 1,839 | 10,817 | 52,596 | 2,190 | 12,884 | 44,030 |
| 4 | 1,256 | 7,390 | 59,986 | 1,256 | 7,390 | 59,986 | 2,009 | 11,816 | 55,846 |
| 5 | 1,013 | 5,957 | 65,942 | 1,013 | 5,957 | 65,942 | 1,716 | 10,096 | 65,942 |
| 6 | ,865 | 5,091 | 71,034 |  |  |  |  |  |  |
| 7 | ,806 | 4,740 | 75,773 |  |  |  |  |  |  |
| 8 | ,727 | 4,279 | 80,053 |  |  |  |  |  |  |
| 9 | ,635 | 3,734 | 83,787 |  |  |  |  |  |  |
| 10 | ,586 | 3,446 | 87,233 |  |  |  |  |  |  |
| 11 | ,535 | 3,147 | 90,380 |  |  |  |  |  |  |
| 12 | ,391 | 2,301 | 92,681 |  |  |  |  |  |  |
| 13 | ,361 | 2,122 | 94,803 |  |  |  |  |  |  |
| 14 | ,326 | 1,918 | 96,721 |  |  |  |  |  |  |
| 15 | ,264 | 1,555 | 98,276 |  |  |  |  |  |  |
| 16 | ,176 | 1,037 | 99,313 |  |  |  |  |  |  |
| 17 | ,117 | ,687 | 100,000 |  |  |  |  |  |  |
| Extraction Method: Principal Component Analysis. | | | | | | | | | |

| **Rotated Component Matrixa** | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
|  | Component | | | | |
|  | 1 | 2 | 3 | 4 | 5 |
| Q1 | ,009 | ,174 | ,128 | ,718 | ,000 |
| Q2 | -,055 | ,030 | ,024 | ,865 | ,121 |
| Q3 | -,034 | ,136 | -,031 | ,795 | ,034 |
| Q4 | ,847 | -,117 | -,004 | ,008 | ,039 |
| Q5 | ,800 | -,118 | ,009 | ,006 | ,156 |
| Q6 | ,841 | -,272 | -,131 | -,001 | ,014 |
| Q7 | ,641 | -,048 | -,071 | -,087 | ,092 |
| Q8 | ,080 | ,023 | ,168 | ,081 | ,634 |
| Q9 | ,140 | ,122 | ,067 | ,132 | ,762 |
| Q10 | ,087 | ,064 | ,149 | -,055 | ,684 |
| Q11 | -,001 | ,140 | ,842 | ,080 | ,089 |
| Q12 | ,013 | ,058 | ,865 | -,015 | ,086 |
| Q13 | -,155 | ,208 | ,564 | ,080 | ,194 |
| Q14 | -,103 | ,123 | ,483 | ,006 | ,364 |
| Q15 | -,186 | ,897 | ,192 | ,150 | ,086 |
| Q16 | -,168 | ,911 | ,165 | ,127 | ,098 |
| Q17 | -,209 | ,867 | ,150 | ,162 | ,115 |
|  | | | | | | |
|  | | | | | | |

**Ζητούμενα:**

1. Είναι τα δεδομένα κατάλληλα για παραγοντική ανάλυση και γιατί;
2. Πόσοι παράγοντες προέκυψαν;
3. Πώς προέκυψε η τιμή 2,655 του πίνακα Total Variance Explained;
4. Ποιο είναι το κριτήριο εξαγωγής των παραγόντων;
5. Ποιο είναι το ποσοστό της διακύμανσης το οποίο ερμηνεύεται από τους παράγοντες;
6. Αναφέρατε τις μεταβλητές που ανήκουν στον κάθε παράγοντα.