

Cluster Analysis for the 1999 Time Use Survey of Korea

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1. Background

The 1999 Time Use Survey of Korea was conducted National Statistics Office of Republic of Korea. The time use survey consists of two parts: one Household Characteristics Questionnaire and the other Time-Diary Survey[1][2][3]. The Household Characteristics Questionnaire is composed of household characteristics and individual characteristics parts. The former includes the composition of household, dwellings, car ownership and the caring of pre-school children and so on, while the latter includes gender, age, education, marital status, and so on. In the case of Time-Diary survey, all the household members aged 10 years and over were asked to record main and simultaneous activities in the time-diary structured in 10 minutes intervals for the designed two days. All the self-recorded activities in the time-dairy are coded into 125 activity categories.

In this work, we try to analyze of clustering of individuals according to activities and find the relationship between clustering and activities.

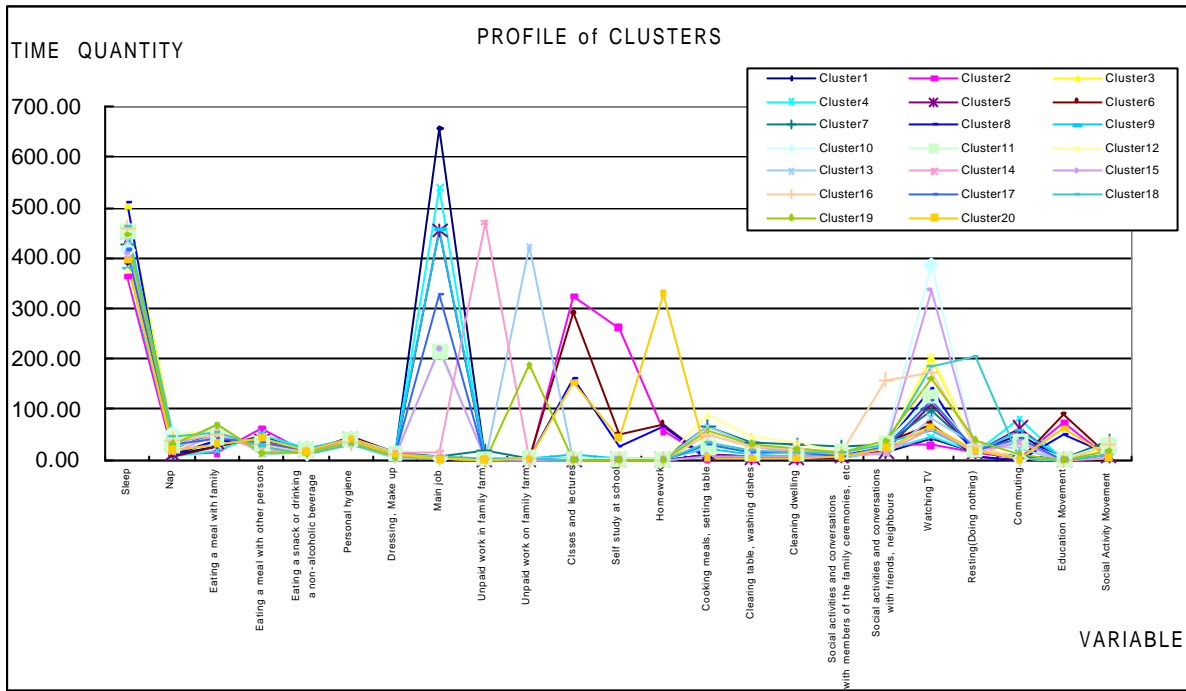
2. Data Description

In the 1999 Time Use Survey of Korea, the sample size is 42,973. We deal with only ‘weekday data’ for analysis among them. Therefore, the analytical data mart has 25,958 cases.

And we selected 23 activity categories for analysis, which is selected the rule of the average amount of time use is over 10 minutes during one day. The selected variables are sleep, personal hygiene, unpaid work on family farm, classes and lectures and homework and so on.

3. Result

We obtain the profile of clusters through the hierarchical cluster analysis using Ward method. The profile of clusters appears in Figure 1. In Figure 1. time quantity which is represented for y-axis is the quantity of average time use by clusters.



<Figure 1> Profile of Cluster

RERERENCES

- [1] Aelee Shon, (2000). Characteristics and Development of Time Use Survey, *The Korea Association for Survey Research*, Vol. 1, No. 1, pp.135-148.
- [2] Korea National Statistics Office, (2000). *Report on the Time Use Survey* Vol. 1. Time Spent on Activities.
- [3] Korea National Statistics Office, (2000). *Report on the Time Use Survey* Vol. 2. Participation Rates in Activities by Time Interval.