Mobile Data for Tourism, Migration, Population and Transport in Korea

- SKTelecom -

2020. 08. 31
People counting & Convergence of data

SKT's market share for floating population:
Dongmun Traditional Market in Jeju island
a representative tourist destination for young people

Index - requiring more parking space
Analysis result using floating population, navigation, parking space of buildings and public parking lot data

Yellow: Low, Red: High

Used by private enterprises and administrative agencies
The Impact of COVID-19

Changes in population movement before and after the COVID-19

There have been three outbreaks of group infection in Korea. SKT, together with the Statistics Korea, provides the results of its impact to the government every week. Used by the Ministry of Health and Welfare and the Centers for Disease Control and Prevention.
Web Service: population movement between regions

Statistics Korea and SKT have launched a data service for population movement between regions.
Traffic

In 2021, it was decided to use SKT's communication data for the national transport DB survey project. Traffic-related research institutes conduct comparison work with national transport DB and Mobile data.

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<thead>
<tr>
<th>Correlation</th>
<th>Pop-mov</th>
<th>Pop-mov: Ex Local Tr</th>
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</thead>
<tbody>
<tr>
<td>Seoul &amp;</td>
<td>0.933</td>
<td>0.932</td>
</tr>
<tr>
<td>North East</td>
<td>0.958</td>
<td>0.801</td>
</tr>
<tr>
<td>Middle East</td>
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<tr>
<td>Middle West</td>
<td>0.907</td>
<td>0.845</td>
</tr>
<tr>
<td>South West</td>
<td>0.941</td>
<td>0.941</td>
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</tbody>
</table>

- **Difference in traffic volume by gender/age**

  - Seoul
    - Gangnam: 30s

  - South West
    - Gangjin (Fishing area): over 60s
Real Time Service: every 5 minutes

24 hour Trend Line

Select gender/age

Population Density

Growth rate based on the last 3 hours

Gender/Age composition Ratio
Question: What is population?

1. What is Population?
   - Classification: Resident population, Daytime population, Visitor
     1) Service population (De facto, all people in area)
     2) Potential Customer: generates an active signal, Excluding people moving fast
     3) Traveler, Traffic Population: stayed more 30 minutes

2. What is Real Time?
   - Every 1 hour: De facto population, avoid overlapping in a time unit
   - Each days: unique population of a day
   - Real time: enough time for understanding & action to an event
   - Quasi-Real time population DB: every 5min

3. Attribute: What we know?
   - Gender/Age, Billing Address & Real Residence, place of work
   - Alliance: Type of housing, Income, Media, Spending and etc