Tourism Statistics based on Mobile Positioning Data
Indonesia Experience

The 12th UNWTO Asia Pacific Executive Training Program on Tourism Policy and Strategy

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**Republic of Indonesia**

**Country Profile**

- **2,120 km from east to west**
- **1,760 km from north to south**
- **1.9 million km² of land**
- **3.1 million km² of water/sea**
- **17,100 island, with only 6,000 are inhabited**

- **262 million people, with more than 300 distinct native ethnicities**
- **742 different language and dialects**

- **14 million int'l tourist; 169 free visa countries; rank 36 GCR WEF 2017, rank 42 at TTCI WEF 2017; rank 47 at CBS WEF 2017**

- **371.5 million cell phone users**

- **300 thousand BTS**

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## SWOT Analysis of Indonesia’s MPD Methodology for Tourism Statistics

### Strengths
- Faster, timely, and accurate
- Cheaper
- Coverage area

### Opportunities
- Multi-purpose application
- Decision making support

### Weaknesses
- Limited information
- Survey is still needed as calibration
- The methodology should always be developed and improved

### Threats
- Data security
## Stakeholder Roles and Responsibility in Indonesia on MPD Methodology

<table>
<thead>
<tr>
<th>Name of Stakeholder</th>
<th>Roles and Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Government</strong></td>
<td>• policy making (MoT)</td>
</tr>
<tr>
<td></td>
<td>• measurement (BPS-Statistic)</td>
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<td></td>
<td>• measurement (Immigration)</td>
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<tr>
<td><strong>The Private Sector</strong></td>
<td>• infrastructure supporting (provider)</td>
</tr>
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<td></td>
<td>• partner (credit card operator)</td>
</tr>
<tr>
<td></td>
<td>• TA/TO (analytical data user)</td>
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<tr>
<td><strong>Industry Associations</strong></td>
<td>• utilizing</td>
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<tr>
<td><strong>Civil Societies</strong></td>
<td>• utilizing</td>
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<td></td>
<td>• active respondent</td>
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<td><strong>International Organization</strong></td>
<td>• capacity building</td>
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<td>• best practice</td>
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<td>• technical assistance</td>
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Highlight of MPD

Key Regulatory and Policy Initiatives

The development of tourism statistics methodology to support the policy making in tourism

Programs

Cross Border Survey conducted by BPS-Statistics, in cooperation with MoT, in order to obtain tourist data at the Indonesian border.

Strategies

The use of MPD to understand travelers behavior in order to develop strategic tourism policy faster and more accurate

Success Story

- In cooperation with BPS-Statistic, MoT has succeed in examining tourist arrival at the Indonesian borders, utilizing mobile positioning data (MPD).
- In our experience, MPD has been accurately captured and increased the coverage of inbound tourists data at 19 regencies consisting of most difficult border check points especially in which Immigration Check Point is not available and Cross Border Survey is difficult to be conducted due to geographical condition.
- MPD tend to has good consistency over time compared to regular data.
**Benefit, Lesson Learned and Recommendation**

**Benefit**
- faster
- cheaper
- real time calculation

**Lesson Learnt**
- MPD change the process
- MPD needs to be developed

**Recommendation**

The use of mobile big data in tourism statistic tend to has good consistency over time compared to regular data. MPD improves timeliness and cost efficiency but on the contrary, the data accuracy of MPD is difficult to measure, it also lacks of information on the purpose of the trip, expenditure, type of accommodation and transportation used. It has to combine with another big data survey (card payment etc.) and followed by advanced analytical study in order to support strategic tourism policy decision making.
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Terima kasih
Thank you