

Mobile Positioning Data (MPD) Case Study

Measuring the impact of international events

Objective

Analyse the impact of large international events in Indonesia using big data

Solution

- 1 Use MPD to analyse the increase in vital tourism statistics during the events
- 2 Determine stays at event locations and in other areas of Indonesia
- 3 Insert the data into a computable general equilibrium (CGE) model to calculate the impact on the economy

Challenges

- 1 The events take place over an extensive period and in multiple locations
- 2 Surveys are costly and employ samples, which are too small to provide the full picture

Results

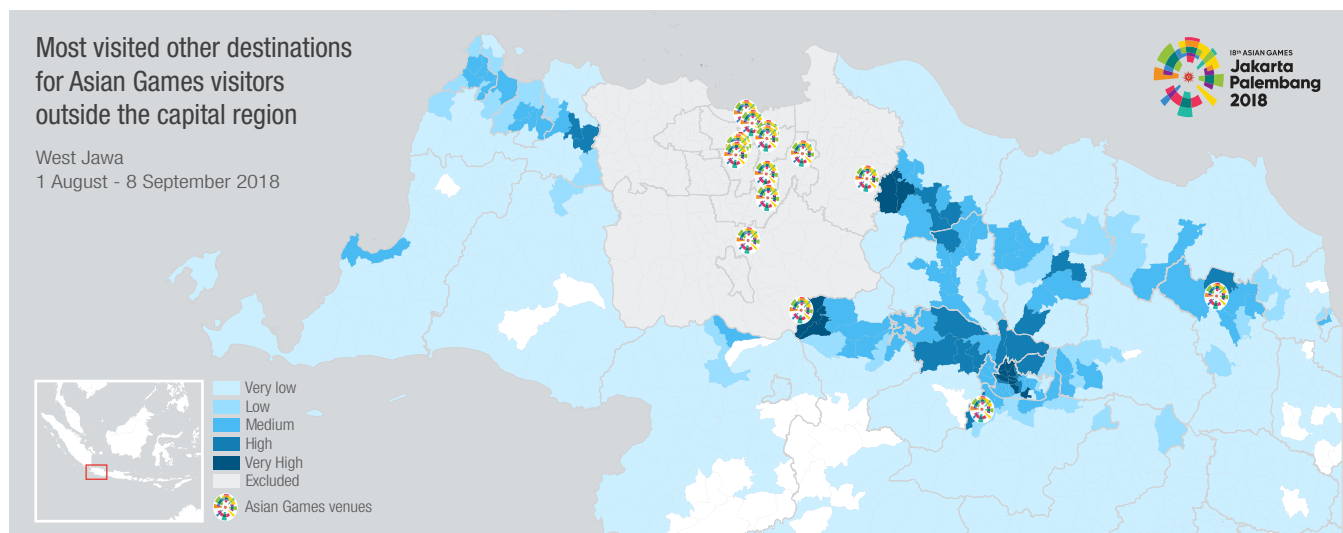
- 1 Measured the impact of event visitors on the immediate area and other destinations
- 2 Provided material for a positive impact assessment for the Minister in charge to present
- 3 Together with Statistics Indonesia built the methodology to calculate the net impact of international events in Indonesia

Asian Games 2018

The Asian Games is the biggest multi-sport event in Asia, comparable to the Olympics and, in 2018, it was held in several locations in Indonesia. The 18th Asian Games attracted visitors both locally and abroad – so, how to measure the impact of the event? Traditional ways of measuring it with surveys have several drawbacks, including the cost of planning, conducting and analysing surveys, and the sampling problems caused by events of such magnitude and diversity of participation.

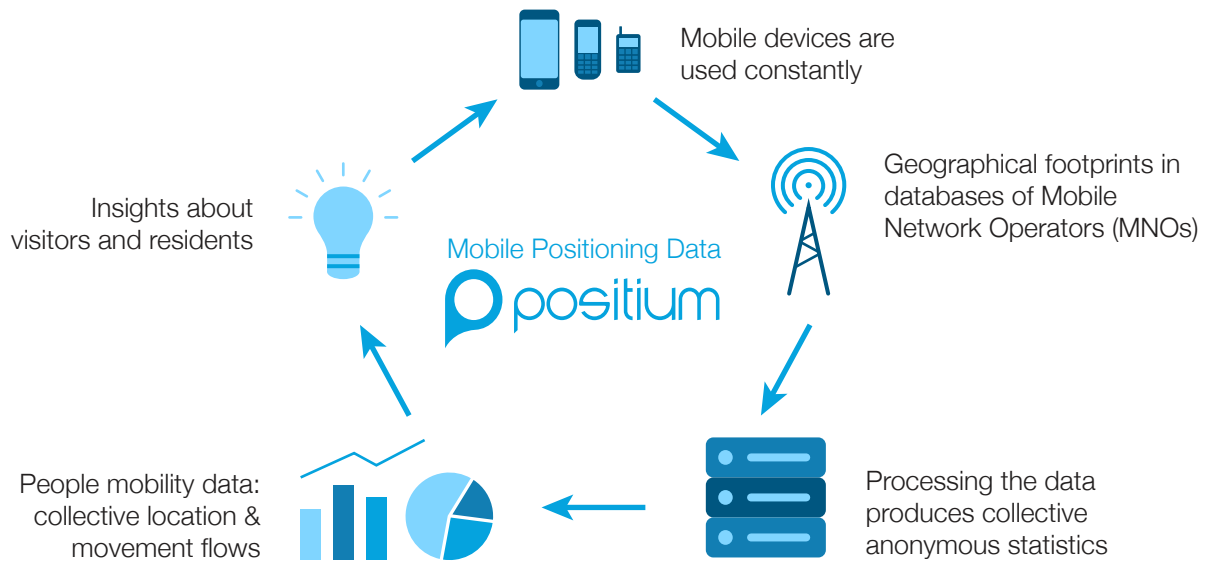
MPD allows to measure tourism at a precise level and compare it to benchmark levels and the nature of tourism. The novel approach in tourism statistics provided BAPPENAS (Indonesian Ministry of National Development Planning) with results in just two weeks after the event ended, while the ticket sales offices and surveying had yet to produce their summaries. The work was undertaken in cooperation with BPS Statistics Indonesia and Telkomsel, the largest mobile operator in Indonesia with over 160 million subscribers.

Based on MPD results, Asian Games 2018 attracted about 80,000 foreign visitors from 126 countries. The number of foreign visitors to the event was lower than expected in comparison to the event's popularity via ticket sales. However, those that visited the Asian Games were the ones who stayed for an extended period and visited many other locations in Indonesia. The most visited places were important tourism destinations like Bandung, Banyuasin, Kemaro island, Batam, and Bali. The Minister of National Development Planning provided an excellent presentation on the impact the event had on the Indonesian economy at large, boosted by key insights from MPD.

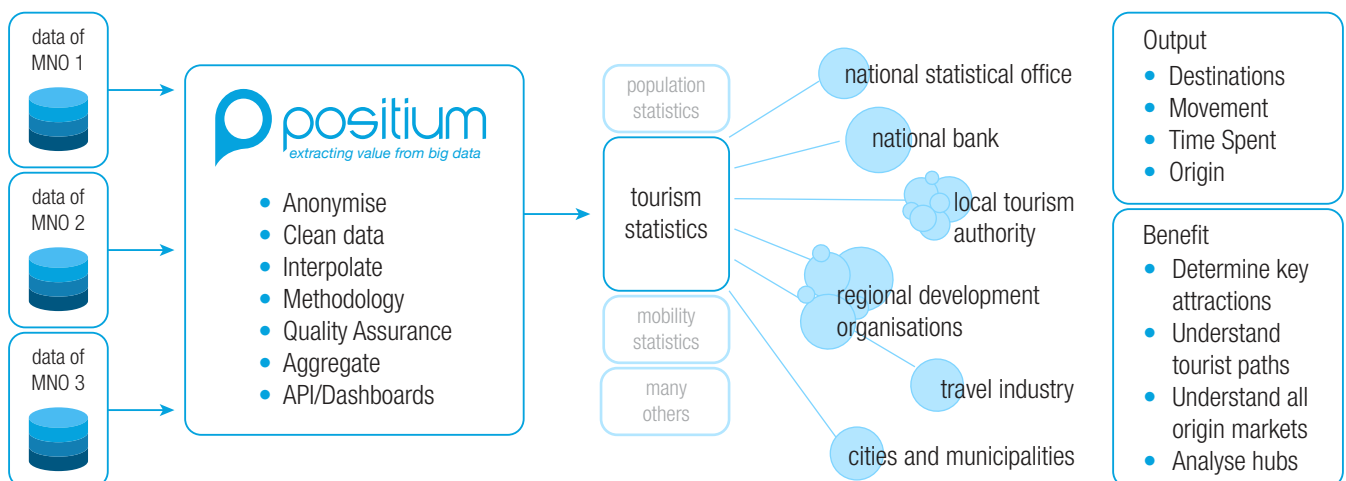


The exercise was repeated in October the same year to measure the impact of the annual meeting of the World Bank Group and the International Monetary Fund, which took place in South Bali.

Mobile Positioning Data (MPD): Introduction



Mobile Positioning Data (MPD): Ecosystem



Positium

Positium is an Estonian registered limited liability company. Positium analyses anonymous mobile positioning data to produce insights into the quantities and movements of tourists and the population.

- Our tools are used in various areas, such as tourism marketing, urban planning, safety and security, geo-targeted marketing, official statistics (tourism, population, etc.), academic research, and many others
- Over 100 projects with mobile data completed
- Cooperation with mobile network operators since 2006
- Analysed mobile data from 10+ countries
- Official analytics partner to the GSM Association
- MPD consultant for the United Nations Statistics Division (UNSD), International Telecommunication Union (ITU), the Organisation for Economic Co-operation and Development (OECD), European Commission
- The only company in the world that produces official statistics based on mobile positioning data
- Proud to be an Affiliate Member of the United Nations World Tourism Organization (UNWTO)