Successfully using electronic card transaction data to produce regional estimates of tourism spend: The New Zealand experience

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Monthly Regional Tourism Estimates

- Background and history
- Electronic card data sources
- Defining domestic tourism spend
- Methodology
- Use of estimates
- Future projects
- Conclusion and recommendations

New Zealand!
10,876km

Kepler Track, Fiordland
Background and history

• New Zealand’s 2011 Tourism Data Domain Plan  Link

• Two new measures using electronic card transaction (ECT) data were produced in 2012.
  • Regional Tourism Indicators (RTIs) a monthly index of regional visitor spend  Link
  • Regional Tourism Estimates (RTEs), an annual estimate of regional spend  Link

• Decision to make a new measure – the Monthly Regional Tourism Estimates, which was developed in late 2015- mid 2016.
Electronic card data sources

• Purchased from Marketview Ltd, commercial data provider, using two geo-located ECT data sources
  • Paymark network (75% of New Zealand retailers; EFTPOS)
  • BNZ (20% of local transactions by card, including merchants)

• Rules are applied to identify tourism spend
  • International tourism – all foreign cards counted
  • Domestic is more complicated

• BNZ data is deemed representative of all ECT payments in the economy, and is used to weight the Paymark data to reflect all ECT payments
Defining domestic tourism spend

- Domestic tourism defined as "persons within their own country outside of their usual environment..." (UNWTO)
Methodology

• Explicitly excluded from scope:
  • Domestic and international airfares
  • International education visitors’ spend

• Modelled in data:
  • Cash
  • Pre-purchased packages and spend offshore
  • Centralised accounts
  • Online spend
Diagram Key:

- MBIE DATA
- STATISTICS
- NEW ZEALAND DATA
- MARKETVIEW DATA

Grey = SURVEY DATA
Green = ADMIN DATA
Teal = DATA COMPILED FROM MULTIPLE SOURCES

Monthly Regional Tourism Estimates Process

Identify tourism spending

- Tourism ECT data for each area, country, product and month

- International weights for each product country and year

- Domestic weights for each product and year

Final adjustments are made to align with TSA totals

Spend is smoothed and forecasts are used

Weights are applied to the ECT data
Use of estimates

MRTEs in action

• Published monthly on the MBIE website
  • [Link (release)]
  • [Link (viewer)]
  • Last Thursday of the month following the reference month
Use of estimates

Event analysis – 2016 Kaikoura Earthquake

Source: Monthly Regional Tourism Estimates, MBIE
Use of estimates

Challenges

• Widely used as a key performance indicator (KPI) for Regional Tourism Organisations
  • Annual revisions process means changes to those KPIs

• Smaller regions may not match “on the ground” data
  • Ruapehu district cultural and recreational services spending category dominated by one business, not on the Paymark network

• ECT data regarded by wider industry as highly accurate
  • Which means using survey data for calibrating ECT totals is believed to undermine the accuracy of the data
Future projects

- Forecasting and revisions process
- Quality measures for series
- Improving estimates from centralised accounts
- Pre-purchased spending
Conclusion and recommendations

• MRTEs are highly used by industry and is useful as a relatively accurate measure of regional tourism spend, providing detail unavailable from surveys (within limited budgets!)

• However, it departs from traditional statistically robust measures
  • Difficult to assess accuracy
  • Caveats appropriately communicated and understood

• ECT/ Administrative data should be used as complementary to other traditional sources, but cannot yet replace them (at this stage!)