

The Impact of Disasters on Japan's Inbound Tourism Demand

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Abstract

The purpose of this study is to evaluate the impacts of disasters on international tourism demand to Japan by applying interrupted time-series analysis methods. The inbound tourist arrivals between Jan.1996 and Aug.2012 to Japan have been investigated using transfer function models, considering the major disasters causing the decrease of inbound tourism: geological disasters, extreme weather events and other disasters such as fire and . About cases selection, we firstly fitted the data in the duration then get residuals and sort them by ascending order. At last we chose four disasters for each type, 12 in all. The results show that great disasters did impact the inbound tourism demand to Japan. The main disasters that mainly brought abrupt decrease are earthquakes and epidemics of infectious disease. The extreme weather events did not impact inbound tourism demand significantly.

Introduction

Japan government has been planning to build a tourism-based nation in future. Japan has long enjoyed a reputation of being a safe and secure destination, but at the same time has suffered from many kinds of disasters, especially natural such as earthquakes and tsunamis, due to its special geographical location. According to Murphy and Bayley (1989), tourism is especially vulnerable to a range of disaster occurrences because it depends on so many components and individual businesses. Disaster prevention plan has been well prepared in Japan but no tourism crisis management. Few studies have been

completed to describe the relationship between hazards and inbound tourism, but even much few has investigated in the impact of disasters on inbound tourism demand to Japan.

Methodology

To test the impact of the disasters on international tourism demand, we employ interrupted time-series analysis which was developed by McCain and McCleary in 1979. The main procedures are as follows:

- (1) ARIMA Identification
- (2) Estimation
- (3) Diagnosis
- (4) Intervention hypothesis test
 - a. Abrupt, Constant Change
 - b. Gradual, Constant Change
 - c. Abrupt, Temporary Change

Conclusion

Great disasters did impact the inbound tourism demand, especially for earthquakes and epidemics of infectious diseases. It is predicted that large-scale earthquakes will occur in Japan. Faced with huge earthquakes, how to get prepared and mitigate the damage for tourism industry need considered.

Note: ARIMA Autoregressive integrated moving-average method