

Forecasting Tourism Demand with Composite Indicator Approach for Fiji

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Abstract

This study attempts to scrutinize the fluctuations of the Fijian tourism market and forecast the early warning signals of tourism market vulnerability using the tourism composite indicator (TCI). The data employed on a monthly basis from 2000M01 to 2017M12 and the indicator construction steps were adopted from the ideology of the National Bureau of Economic Research (NBER). A parsimonious macroeconomic and non-economic fundamental determinant are included for the construction of TCI. Subsequently, the procedure then employed the seasonal adjustment using Census X-12, Christiano-Fitzgerald filtering approach, and Bry-Boschan dating algorithm. Empirical evidence highlighted the signalling attributes against Fijian tourism demand with an average lead time of 2.75 months and around 54 percent of directional accuracy rate, which is significant at 5 percent significance level. Thus, the non-parametric technique can forecast the tourism market outlook and the constructed TCI can provide information content from a macroeconomic perspective for

policymakers, tourism market players and investors.

Keywords: Tourism composite indicator, Early warning signal, Non-parametric approach, Tourism demand forecasting

1. Introduction

In line with the UNWTO World Tourism Barometer, a total of 1.4 billion international tourist arrivals, with 6 percent growth compared to the previous year, was recorded in 2018. Furthermore, the World Tourism Organisation (UNWTO) also forecast an incremental growth of 3 to 4 percent of international tourist arrivals in conformity with the historical growth trend. Aside from the increasing importance of tourism for the global economy, there was growth for the regional economies in 2018. The Asia-Pacific region alone showed a remarkable growth of 6 percent in 2018 with 343 million international tourist arrivals (UNWTO, 2019). Moreover, tourism accounts for around one out of ten new job opportunities across the world. The outstanding performance of the global tourism industry worldwide affirms its position as one of the most powerful drivers of economic revenue and a catalyst for economic development. Hence, the tourism sector with its multiplier effects should achieve the real benefits for a country. Specifically, job creation, entrepreneurship and the involvement of local communities should leave no one behind in the revenue generated from the tourism sector despite the risk of economic leakage.

The general circumstance of the stability of oil price has been tentatively and highly linked to affordable air connectivity and stimulates the diversification of source markets. Strong outbound travel from emerging markets due to stable oil price can improve tourism growth in most destinations. Apart from the fluctuations of oil price, trade tensions will consequently inhibit investors and travellers from visiting a country. These global challenges for tourism also affect Pacific islands like Fiji.

According to the World Travel and Tourism Council (WTTC), international tourist arrivals and tourism receipts progressively show a positive trend over the past few decades despite political instability and other global crises. The international tourism receipts increase from USD 291 million to USD 1,188 million for 2000 and 2017 respectively. Concurrently, tourism arrivals have also shown a significant growth from 294 thousand travellers in 2000 up to approximately 796 travellers in 2017 for Fiji. Fiji is one of the small developing island countries and one of the tourism-dependent countries, recording 40.3 percent of tourism contribution to GDP. Thus, it is crucial to develop research to ensure the tourism development of Fiji can be managed in a sustainable manner by uncovering and addressing the underlying issues.

The tourism sector remains one of the largest contributors to the Fijian economy and the primary economic driver, supported by other industries for income generation such as agriculture, sugar and garment. However, there are a few challenges that need to be tackled cautiously to ensure that appropriate policy implications can be recommended for the further development of the Fijian tourism sector. The challenges of the Fijian tourism cycle are threefold: political turmoil that discourages collaboration with other Pacific countries and