

Inbound Tourists to New Zealand: An Application of Shift-Share Analysis to Measure Arrivals Competitiveness

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Abstract

In the pre-COVID era, tourism was one of the fastest growing sectors accounting for about 10% of the global economic activity, with 319 million people employed globally in this sector. In many countries, international tourism constitutes a major part of the economy in terms of generating export revenue and, creating jobs. International tourism plays a significant role in integrating the New Zealand (NZ) economy with the global economy as New Zealand is geographically isolated from other countries. In line with the global trend, there has been an increase in the inbound tourists to NZ from 1.45m in 2015 to 3.9m in 2019 a 38% increase, accounting for 6% of GDP, 13.5% of employment, and 21% of NZ's total exports. Australia is New Zealand's closest neighbor which attracts large number of tourists every year which also benefits New Zealand as these two destinations are combined by the visitors. Given the significance of tourism sector to its economy, New Zealand has to remain competitive to attract tourists. An application of Shift-share analysis indicates that from 2010 onwards, a clear pattern of rising trend emerges with regard to actual growth in arrivals, area wide effect, and the competitive effect.

Key words: New Zealand, Arrivals, Shift-share analysis, area wide effect, and competitiveness.

1. Introduction

Tourism is the second fastest growing sectors (next to Manufacturing) in the 21st century accounting for about 10% of the global economic activity. The World Travel and Tourism Council (WTTC) estimates that in 2019, the global tourism sector grew by 3.9% greater than the world GDP growth rate of 2.3%. The sector also grew at a higher rate than some other service sectors such as Healthcare (3.1%), and Information Technology (1.7%). An important contribution of the tourism sector is the creation of jobs. In the year 2018, the sector accounted for 319 million jobs globally which is expected to reach 421 million by 2029[?] In dollar terms, the sector's share of the world economy amounted to \$8.8 trillion in 2018 of which 29% came from the international tourists and 71% from the domestic tourism (WTCC, 2019). Thus, tourism sector plays a significant role in contributing to the world economic and employment growth. Growing income levels, liberalising travel restrictions such as, visitor visa approvals in many countries have contributed to the phenomenal growth in international tourism.

International tourism plays a significant role in integrating the New Zealand (NZ) economy with the global economy as New Zealand is geographically isolated from other countries. As tourism is an important revenue generating sector, New Zealand has to remain competitive to attract higher number of international tourists. In line with the global trend, there has been an increase in the inbound tourists to NZ from 1.45m in 2015 to 3.9m in 2019 a 38% increase. A consequence of this rising trend is the positive impact on the economy i.e. tourism accounts for 6% of GDP, and 13.5% of employment. In addition, tourism constitutes a major portion of NZ's exports of goods and services. In the year 2019 tourism accounted for 21% of NZ's total exports. Australia is New Zealand's closest neighbour with a large geographical area and, five times the population of New Zealand. Both countries have strong trade and, economic relations. In terms of inbound tourists, and the impact on the economy, NZ and Australia have several commonalities. Asia, Europe, and North America are the major sources of international tourists. Tourism contributes to 10.8% to Australian GDP, 12.2% employment and 8% of exports (WTCC, 2019).

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Australia as a destination has some inherent advantages such as being closer to the international markets, large in size, and many tourist attractions. It is well known that majority of international tourists who visit Australia also visit NZ by combining both the destinations in their itinerary. It may be mentioned that NZ has its own specialties in terms of clean, green environment, low crime rate, and a friendly hospitality industry that adds to NZ's competitive strength making it an attractive destination by itself. Given the increasing inbound tourist numbers, and the significance of tourism sector to the NZ economy, it is appropriate to disaggregate the contributing factors so that suitable policy decisions can be made to enhance NZ's competitive strength in attracting tourists over a period of time. A search of the existing literature found no similar study on New Zealand's tourism sector, and this research article fills the existing gap.

2. Purpose

The aim of this study is to disaggregate the components of growth in inbound tourism to New Zealand during the pre-COVID years 1995-2019 i.e. latest pre-COVID year for which data is available. The second objective is to analyse the extent to which NZ benefitted from area-wide growth i.e. overall growth in inbound tourists to the region consisting of New Zealand and Australia (two largest countries in Oceania). The third objective is to evaluate NZ's competitiveness in terms of attracting tourists from different regions i.e. whether NZ has competitive advantage in attracting tourists in comparison with Australia. For the purpose of this study three source regions have been considered viz., North America consisting of USA & Canada, Europe and, Asia consisting of PRC, Japan, South Korea and, India. These three regions accounted for 33% of New Zealand's inbound tourists in 2019 (Statistics New Zealand, 2019). Based on the results the study aims to make recommendations to enhance NZ's tourism sector's competitive advantage.

3. Literature Review

The literature on the economic impact of tourism on New Zealand economy is sketchy and is very limited. Hence a general overview of the link between tourism and economic growth is presented here. There are many reasons for the growth in the travel and tourism industry in the last 20 years. There has been a shift in the paradigm where not only the wealthy or elite society went on overseas trips, but ordinary people could go on short foreign visits lasting only a week or two. The push and pull factors such as relaxation, spiritual awareness, education, adventure, natural resources, events and, activities contribute to a significant increase in the tourism industry (Khuong & Ha Thu Thi, 2014). Sampson (2019), states that UNTWO predicts international travel to grow 3- 4% in 2019 globally and predicts 1.4 billion international tourist arrivals for 2020. UNWTO's press release (2019) reported the tourists' arrivals by the region, Europe, Asia and Pacific and America. Europe reached 713 million, 6% increase from 2017. Asia and Pacific recorded 343 million international tourist arrivals, an increase of +6%. The Americas welcomed 217 million international arrivals. All the three regions showed increase in the tourist numbers. Some contributing factors to the rise of tourism at global level include higher disposable household incomes, four to six weeks of paid annual leave, relaxed visa rules for visitors, reduction in costs and travel times due to developments of new technology. Dwyer (2015), posits that people have acquired new consumer behaviours and values. Tourists spend their discretionary income on experiences rather than on products and experiences and seek "authentic" experiences to the destinations that often involves social and emotional connectivity. Individual countries that attract international tourists do benefit from their spending. Maden et al.(2019) in their study on the effects of tourism on Turkish economy found a statistically significant positive correlation between tourism income and growth in national economy resulting in higher per capita income. They also concluded that growth in tourism sector also leads to development of other sectors with forward and backward linkages. Suresha et al. (2018) found a mutually supporting relationship between international tourism, and economic growth. They describe that international tourism, in addition to being a source of foreign exchange earner, also stimulates international trade and economic growth. In turn international trade and economic growth also influence international tourism i.e. international tourism, international trade, and economic growth mutually influence each other in a positive way. Given the positive relationship between international tourism and economic growth, New Zealand a geographically isolated country, must develop a sustainable competitive advantage as the direct contribution of international tourism accounts for 6% of GDP with a further 4% in indirect contribution (Tourism Industry Aotearoa, 2019).

4. Methodology

Shift-share analysis as reformulated by Esteban-Marquillas (E-M) is used to decompose the visitor arrival growth in New Zealand. The E-M method, when applied to disaggregate growth in tourism, considered to be superior to the classical shift-share equation. The latter was mostly used by the regional economists to decompose the growth in regional employment attributed to national growth, industry mix and competitive effects.

However, the competitive effect failed to account for the interwoven effect of the industry-mix and competitive effects (Herzog& Olsen, 1977). The E-M method redefines the competitive effect by adding a new element *viz.*, the *allocation effect* which indicates whether a country is specialised in attracting tourists from a particular region in comparison with its competitors. In this case, the allocation effect reflects whether New Zealand is specialised in attracting tourists from selected regions in comparison with Australia.

The method is applied to decompose the net shifts in terms of area wide effect, country mix effect, competitive effect and allocation effect. The net shift in tourist arrivals for each region indicates whether New Zealand is competitively superior to Australia in attracting international tourists.

$$T^v_{AB} - T^0_{AB} = T^v_{AB}(\beta_{ALL})T^0_{AB}(\beta_A - \beta_{ALL}) + HAB(\gamma_{AB} - \beta_A) + (T^v_{AB} - HAB)(\gamma_{AB} - \beta_A)$$

Where:

$T^v_{AB} - T^0_{AB}$ = absolute growth of visitor arrivals from region A to New Zealand from the beginning to the end of the period

$T^v_{AB}(\beta_{ALL})$ = area-wide effect

$T^v_{AB}(\beta_A - \beta_{ALL})$ = country mix effect

$HAB(\gamma_{AB} - \beta_A)$ = competitive effect

$(T^v_{AB} - HAB)(\gamma_{AB} - \beta_A)$ = allocation effect

(Vu & Turner, 2011)

The area wide effect measures the growth effect i.e. it indicates the growth or decline in the number of inbound tourists to New Zealand if it had grown at the same rate as achieved by the region which in this case consists of both New Zealand and Australia.

The country mix effect shows the relative importance of a specific source region e.g. Europe relative to other regions over a period of time in terms of inbound tourists to New Zealand. A positive country mix effect indicates the portion in the net shift that can be attributed to New Zealand's specialisation in attracting visitors from that particular region relative to other regions.

The competitive effect measures changes in New Zealand's inbound tourists not attributable to area wide and country mix effects. In other words, competitive effect indicates the extent to which tourist arrivals in New Zealand differ from what would be expected if the growth was same as area wide growth and country mix effect.

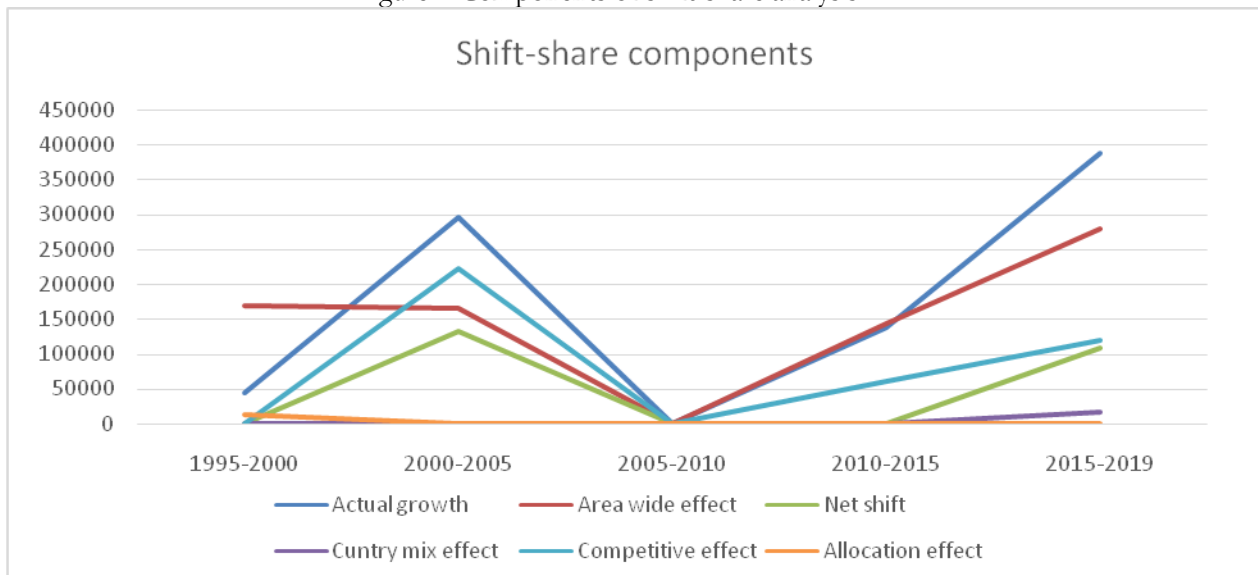
The allocation effect measures New Zealand's degree of specialisation in attracting tourists from those regions in which it has a competitive advantage. A positive value indicates that New Zealand is specialised in attracting tourists from regions in which it has a competitive advantage.

Table-1 Components of Tourist Arrival growth in New Zealand

New Zealand	Actual growth	Area wide effect	Net shift	Country mix effect	Competitive effect	Allocation effect
1995-2000						
Europe	51436	74940	(-)23504	42064	(-)85416	19848
North America*	16363	36191	(-)19828	8445	(-)23570	(-)4703
Asia*	(-)23619	58950	(-)82569	(-)50539	(-)29555	(-)2475
Total	44180	170081	(-)125901	(-)30	(-)138541	12670
2000-2005						
Europe	189129	81334	107795	2363	172342	(-)66910
North America*	23500	36990	(-)13490	(-)21920	8089	341
Asia*	84627	46678	37949	12102	42697	(-)16850
Total	297256	165002	132254	(-)7445	223128	(-)83419
2005-2010						
Europe	(-)54550	(-)16672	(-)37878	30773	(-)60353	(-)8298
North America*	(-)16500	(-)5457	(-)11043	(-)21636	8081	2512
Asia*	(-)91587	(-)8555	(-)83032	(-)45351	(-)28029	(-)9652
Total	(-)162637	(-)30684	(-)131953	(-)36214	(-)80301	(-)15438
2010-2015						
Europe	(-)50375	83676	(-)134051	(-)80933	(-)52438	(-)680
North America*	20976	27648	(-)6672	(-)7680	974	34
Asia*	167280	31857	135423	75996	112291	(-)52864
Total	137881	143181	(-)5300	(-)12617	60827	(-)53510
2015-2019						
Europe	112037	122184	(-)9877	(-)74775	88743	(-)23845
North America*	119612	52297	67315	19302	63726	(-)15713
Asia*	156800	105624	51176	71638	(-)32598	12136
Total	388449	280105	108614	16165	119871	(-)27422

Source: Calculations based on Statistics New Zealand, and Australian Bureau of Statistics data bases.

Figure-1 Components of shift-share analysis



Source: Table-1

5. Analysis

During the years 1995-2000, the net shift is a negative (-) 125901 indicating that the actual growth was less than what would be expected if the inbound tourist numbers increased at the same rate as the combined increase in New Zealand and Australia (Table-1). The negative net shift has been contributed by all the three regions. However, the positive country mix effect indicates that New Zealand was a favourite destination for tourists from Europe and North America compared to Asia.

The competitive effect has been negative from all the three regions with a total of (-) 138541 which shows that New Zealand's competitiveness was not strong enough to positively deviate from the area-wide and country mix effects. The positive allocation effect (12670) was contributed by Europe i.e. New Zealand was the preferred destination for tourists from the European region. This is an indication that NZ has the potential to be an attractive destination on its own for tourists from this region.

5.1. 2000-2005

There has been significant improvement in the net shift during the time period 2000-2005. The net shift changed from a negative 125901 to positive 132254 i.e. the actual growth in the arrivals surpassed the expected arrivals as indicated by the area wide effect for the benchmark region (Table-1). A significant component of this positive net shift i.e., the competitive effect has changed from a negative 138541 during 1995-2000, to a positive 223128. All the three regions have contributed to this positive competitive effect a complete reversal from the 1995-2000 time period. The implication is that the growth in arrivals during this period cannot be solely attributed to area wide and country mix effects but due to improvement in New Zealand's competitiveness. The allocation effect of a negative 83419 indicates that New Zealand did not possess the required degree of specialisation i.e. specialist attractions, in enticing tourists from the regions in which it had a competitive advantage.

5.1.1. 2005-2010

This time period reflects a low phase of inbound tourism to New Zealand. This phenomenon may be attributed the Global Financial Crisis which started in 2008 leading to a global recession, rising unemployment, and falling income levels which restrict discretionary spending such as overseas holidays. The UNWTO and the ILO (2013), estimated that the 2008–2009 global economic crisis has seriously affected the international tourism, resulting in a decline of 4% in international tourist arrivals and a decrease of international tourism revenues by 6% in 2009. The impact differed from country to country e.g. in Jordan the arrivals decreased by 15% in December 2008, compared to the same month in 2007 (Maher et al, 2013). Meng et al. (2010) found that Singapore experienced a decline of 13.5% in tourist arrivals in the first half of 2009 compared with the first half of 2008 (Meng et al, 2010). In line with the global trend New Zealand also experienced a decline in total arrivals by 162637 i.e. 182% decline over 2005. Out of this decline only 30684 i.e. 19 % can be attributed to the area-wide effect and the balance net shift of (-) 131953 is contributed by country mix 22%, competitive 49% and allocation effects 10% (Table-1). A major factor that contributed to this decline is competitive effect. The possible reason for this is that New Zealand is geographically isolated and, far away from the source regions. It is expensive to travel to New Zealand as it is connected only by air with the rest of the world for tourism purposes.

Given the global recession resulting in declining demand for overseas holidays New Zealand as a destination would have been out of reach for many visitors.

5.1.2. 2010-2015

The absolute growth increased by 184% compared to 2005-10 mostly due to significant arrivals from Asia accounting for 178% over 2005- 2010 arrivals (Table-1). The area wide arrivals were slightly higher resulting in a negative net shift of 5300 about 4% of the absolute growth during the years. The increase in arrivals could not be attributed to area wide growth or country mix effects as both show negative totals for the period. This indicates that the growth is due to significant improvement in New Zealand's competitive strength in attracting tourists from Asia, particularly from China. Chinese tourists accounted for 7.5% of the total arrivals in 2015, and 66% from Asia. The large arrivals from Asia reduced the negative shift to a great extent.

5.1.3. 2015-2019

All the indicators show that New Zealand's tourism sector achieved an impressive growth during this period. The absolute growth of 388449 risen by 183% over 2010-15 surpassing the area wide effect of 280105 resulting in a positive net shift of 108614 (Table-1). As in 2010-15, the major contributor to this phenomenal growth is due to the rising number of tourists from Asia, particularly from China. The overall positive country mix effect of 16165 was the result of positive contribution from Asia, particularly from China which accounted for 8.5% of total arrivals and 67% from the Asian region. The competitive effect was a positive 119871 a 97% increase over 2010-15 indicating that NZ had competitive advantage independent of area wide and country mix effects. A further analysis reveals that tourists from North America, and Europe made a positive contribution to the competitive effect, Asian contribution was negative. The overall, negative allocation effect implies that New Zealand did not specialise in attracting tourists from those regions in which it had a competitive advantage.

6. Conclusions and Recommendations

The trends of various components of Shift-share analysis are presented in Figure-1. During the time period 2000-2005, there has been a rise in the actual growth of inbound tourists, and the area wide effect remained more or less unchanged. However, about 160% increase in the competitive effect can be observed indicating New Zealand's ability to attract tourists independent of the area wide and country mix effects. It may also be noted during the entire period of study, the country mix, and allocation effects remained flat with no significant changes. All the components exhibited a negative growth during 2005-2010 which can be attributed to the Global Financial Crisis, that caused a decline in tourism sector across the world, and New Zealand was no exception.

From 2010 onwards a clear pattern of rising trend emerges with regard to actual growth, area wide effect, and the competitive effect. The growing competitive strength implies that New Zealand entices inbound tourists independent of the area wide and country mix components i.e. there are some differentiating factors unique to New Zealand such as clean, green environment that add to its competitiveness.

COVID-19 is expected to adversely affect the global tourism. As a consequence, tourist arrivals to New Zealand are also expected to take a dive. As of now there is uncertainty about the revival of international tourism. New Zealand should now focus on promoting domestic tourism which in 2019 accounted for about 60% of total revenue generated by this sector. Promotional videos highlighting the features of some unique locations, and tax breaks to hospitality industry are likely to encourage domestic tourism in the near future.

As can be observed, the scope of this study is confined to pre-Covid years. Further research can be carried out to study the impact of Covid-19 on New Zealand's tourism sector.

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