Travel Dispersal of Chinese Visitors in Queensland: A comparative analysis

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**Abstract**
Tourist dispersal is responsible for the distribution of tourism revenue and promotes exposure of regional centres that are outside the major gateways. In the context of Australia, travel dispersal is particularly relevant as the country has only a few international gateway cities, leaving many regions without an equitable opportunity to compete for tourist dollars. Research specific to tourist dispersal in Queensland is still under-developed, especially regarding the Chinese market, one of the fastest growing international markets in Australia. Based on 819 surveys carried out with overseas passengers at Brisbane Airport, this paper aims to identify the overall travel dispersal patterns of international visitors in Queensland and identify the differences between the Chinese market and other international tourist markets in Queensland.

**Keywords:** Brisbane Airport, Chinese visitors, Travel dispersal, Trip Index, Queensland.
Introduction

Tourist dispersal is achieved when many destinations are visited within the same trip, or when a unique trip is undertaken in many parts of a larger destination (Wu and Carson 2008). Dispersal of international visitors in Australia is defined as a portion of nights spent outside the four major gateways of Australia (Sydney, Melbourne, Brisbane and Perth) in relation to the total number of nights in that trip (Tourism Research Australia, 2009). Tourist dispersal is responsible for the distribution of tourism revenue and promotes exposure of regional centres that are outside the major gateways. The Australian Government has found that greater tourist dispersal is beneficial to regional areas as it promotes job growth, higher standards of living and opportunities to diversify their economic base. (Koo, Wu and Dwyer, 2012).

More than seven million international visitors entered Australia in 2016, which equates to an industry worth just shy of $40 billion ($39.8 Billion, year ending March 2017, International Visitors Survey). Visitors are restricted in their ability to disperse by the transportation services available. The greater degree of mobility a visitor achieves, the more they will be able to disperse (Wu and Carson, 2008). For example, in most regions of Queensland, a self-drive traveller who has hired a car has a higher degree of mobility than a traveller who is relying on public transport. If sub-regions within Queensland can recognise trends of the transport mode choices of international visitors, transport network planning can ensure that traveller mobility is maximised, and dispersal is achieved. This pattern spans across a variety of modes of transport, including air, road and rail.

Of particular interest is the booming Chinese tourism market. Chinese holiday spending has increased 396% (or $1.8b) between March 2010-2017 and is now the largest market regarding expenditure ($9.7 billion) and total nights stayed (50.7m) (Australian Tourism Research 2017). By 2020, the Chinese tourism market is predicted to see a 42% growth in expenditure, reaching $13 billion (Tourism 2020 Strategy, 2011). Research specific to tourist dispersal in Queensland is still under-developed, especially regarding the Chinese market. This paper aims to identify the overall travel dispersal patterns of international visitors in Queensland and identify the differences between the Chinese market and other international tourist markets in Queensland.
**Literature review**

Researchers have adopted various approaches in an attempt to measure tourist dispersal. Pearce and Elliot (1983) used descriptive measures to develop the Trip Index (TI) which compares the amount of time spent at a destination with the total time of the tourist’s trip (Lohmann, Panosso Netto, 2017). Depending on the duration of stays in a particular destination, Pearce and Elliot proposed a classification of the TI which comprises:

- Short stops, for TI values between 1 and 10;
- Intermediate stops, for TI between 11 and 20;
- Long stops, for TI values between 21 and 50;
- Primary destination, where half of the nights of the trip are spent, with TI values between 51 and 99;
- Only destination, in the cases where no dispersal exists, and travellers spend all the nights in only one destination. In this case, the TI is equal to 100.

Oppermann (1992) aimed to improve on the TI of Pearce and Elliot by shifting the focus from a purely descriptive measurement to a more causal analysis, developing the Travel Dispersal Index (TDI). He attributed a number of trip-related variables to influencing dispersal behaviour of tourists. To each variable, he applied a weighting factor according to its relative importance level to the overall dispersal (Koo, Wu, Dwyer, 2012). Oppermann’s variables included:

- The number of overnight destinations;
- The number of nights;
- The number of different types of accommodation;
- The number of different types of transport;
- The travel organisation.

Allcock (1996), who tested the TDI in an Australian context, argued that the variables selected by Oppermann were too general and lacked the power to explain the variation in the distribution of visitors within Australia (Koo, Wu, Dwyer, 2012). Koo, Wu and Dwyer (2012) concluded that the weighting factors Oppermann (1992) and Allcock (1996) used to operationalise the TDI were not empirically validated and that a more comprehensive range of dispersal factors needed to be considered.

Tideswell and Faulkner (1999) and Bowden (2003) explored the variation of travel behaviour that different markets present within the same destination, emphasising that “dispersal patterns are not random” (Bowden 2003, p.257; Wu and Carson, 2008), but may
systematically arise from visitor characteristics, including: travel mobility; travel purpose; travel party characteristics; and travel arrangements. These factors were found to be significant in their explanatory power to account for variation in itinerary choices in later studies by Tideswell (2004) and Collins (2006) and Koo, Wu, Dwyer (2012).

Chinese tourists are different to other tourism markets in terms of their travel behaviour. Hsu et al. (2006) found that Chinese travel decisions are strongly influenced by friends, relatives, and travel agents. Kim et al. (2005) also found specific destination attributes to be of significance in influencing Chinese travel decisions. The top five are: safety; beautiful scenery; well-equipped tourism facilities; good weather; and shopping. Although these studies were not specifically linked to dispersal, they do provide some insight into the decision-making process that influences Chinese decisions about travel. Thus, it is likely that these influences also play a key role in the overall dispersal propensities of Chinese travellers within a destination. The research of Pan and Laws (2001) found that Chinese tourists visiting Australia were most likely to do so as part of an all-inclusive group tour. More recently, Beeken et al. (2008), using data from the international visitors’ survey (IVS) collected between 2006 and 2007 in New Zealand, found that only 28.4% of Chinese tourists were travelling with an organised tour group, while 36.9% were touring New Zealand as Free Independent Travellers (FIT). These results demonstrate that over a relatively short period of 5-6 years, the Package Tour/FIT ratio was swinging toward the FIT end of the spectrum. Oppermann (1992b) reported tendencies for travellers on organised group tours to disperse less than FIT’s due to the predetermined itineraries which were usually arranged by the tour company on their behalf (Tideswell and Faulkner, 1999). More recently, however, Koo et al. (2012) reported a positive correlation between package tours and dispersal. Although, they go on to note: “The positive effects may be limited to destinations with well-established tour-operator preferred sectors, which are often the large regional centres” (Koo et al., 2011, p.1213).

In light of this information, this research aims to identify the overall dispersal trends and travel patterns of international travellers in Queensland to assist with the implementation of policy and strategies to best target international tourists and maximise dispersal. Also, a travel market analysis is pursued to determine trends of the Chinese travel market in terms of their destination choices and characteristics. Variables outlined by Oppermann (1992) and Bowden (2003) were used to design the survey and the Trip Index described by Pearce and Elliott (1983) was adapted to compare and identify destinations of interest for travel market groups within Queensland’s sub-regions.
Methodology

To obtain a sample large enough to be representative of the overall visitors’ population, particularly regarding segmenting this sample into specific sub-samples, a total of 800 surveys were targeted. To ensure the results of the survey were relatable with dispersal, variables outlined by previous researchers, as per the literature review, were implemented into the questionnaire design. The key variables were as follows:

- the number of overnight destinations;
- the number of nights in Australia;
- the different types of transport mode choices;
- the travel purpose;
- the travel party composition;
- the country of residence.

A total of 992 passengers responded to the survey, with a final sample of 819 useful responses considered for this study (once surveys that were incomplete had been excluded). Data was collected during August 2017, specifically in the mornings and evenings, when most of the international outbound flights occur (see Figure 1 for the international destinations served out of Brisbane). Passengers were screened in the departure area near the gates, using the following criteria:

- Had spent at least one night of their trip in Queensland;
- Did not live in Australia;
- Were over the age of 18.

It is important to emphasise that the sample was not weighted according to the various international flights, with passengers travelling through main intercontinental hubs such as Singapore, Dubai, Abu Dhabi, Los Angeles being targeted in particular. Hence, variations should be expected between the sample of passengers from this project in comparison to other studies done at BNE, where weighting factors have been applied. Only visitors over the age of 18 years were targeted for both sub-samples, and only one person in a group was approached.

To compare markets regarding country of residence, a process similar to the Trip Index used by Pearce and Elliot (1983) was adopted. To compensate for shortfalls in the survey, where responses from certain countries were underrepresented, markets were grouped as follows:

- China mainland
- East Asia: Japan, Korea, Hong Kong and Taiwan
• Other Asia
• New Zealand
• Europe: All European countries except the United Kingdom
• United Kingdom
• North America: The United States of America and Canada
• Rest of the world

By developing a TI for each destination visited, it provides an insight into the importance level a traveller has attributed to a particular destination and can help distinguish how that destination fits into the overall itinerary of an entire trip.

The Trip Index for each of the 819 responses was calculated using data analysis software SPSS. The results were grouped into their respective market segments and arranged into the classification model proposed by Pearce and Elliot so that percentage of trips with a trip index in that range is presented. This process was repeated for each of Queensland’s sub-regions in relation to the market segments described earlier.

Data Analysis

International Visitor Profile

The profiles and overall travel patterns of outbound international visitors (only overseas passengers) at Brisbane Airport (BNE) are presented in this section of the report. The data was obtained through surveying 992 travellers at the departure gates of the BNE international terminal between the first and last flights of the day. After the data was cleaned, a usable sample of 819 respondents was obtained.

BNE offers a number of international flights; Auckland (Air New Zealand), Doha (Qatar Airways), Singapore (Singapore Airlines), Denpasar (Jetstar and Tiger), Hong Kong (Cathay Pacific) and Kuala Lumpur (Malaysian Airlines). As seen in Figure 1, the thickness of the line represents the passenger share each destination received from the sample (n=819).
Figure 2 illustrates the origin country of international travellers represented in the sample. As mentioned earlier, some countries have been grouped to form market segments. Although the United Kingdom (UK) is a part of Europe, travellers from the UK traditionally demonstrated different travel behaviour to other European countries due to Australia's history as a dominion of Britain. For this reason, they have been separated from the other European countries into their own entity. The Asian portion of the sample has also been segmented. China mainland is on its own, while the remaining Asian countries have been divided into two separate groups, East Asia and Other Asia. East Asia is made up of Japan, Korea, Hong Kong and Taiwan, while “Other Asia” is represented by all of the remaining Asian countries which were accounted for in the sample.

The European portion of that sample makes up the largest contribution (19%). This fact may seem contradictory in relation to IVS statistics. However this representation was inflated by the large number of countries which are included in this group. For example, France, Germany and the Netherlands alone made up more than 10% of the entire sample. Also evident is an underrepresentation of responses in relation to the Chinese mainland,
accounting for just 8% of the sample. The IVS finds that China is the second largest contributor regarding visitor arrivals (Largest in terms of expenditure = $9.7bn), totalling 1,227,900 between March 2016 and March 2017 or 14.6%, second only to New Zealand. Communication difficulties that were encountered when attempting to engage Chinese travellers and their reluctance to participate in surveys may provide some reasoning into this under-representation.

Figure 2: Market segments of the sample for this report (n=819)

The age profile of respondents reveals that the Chinese are amongst the youngest of international visitors representing the largest portion of those aged between 18 and 19 years (11%). East Asia and Europe are also closely represented by this age group. China, East Asia and Europe appear to be similarly represented by travellers between 18-30 years, with one exception. For the 20-24 bracket, the European sample was 7% higher than the next closest market group (East Asia, 16%) and 8% higher than the Chinese (15%). Only 26% of the Chinese sample is over 39 years of age (next closest was Europe with 38% and East Asia with 46% over 39 years. A steady decline can be seen in the sub-group 40-44 years (8%) until 60-64 (0%) with no Chinese responses over the age of 60. This fact is in contrast to New Zealand and North American travellers who represent an older demographic. Only 29% of those from New Zealand and 30% from North America were under the age of 40.
The responses about whom visitors were travelling with, revealed that Asian countries represent the largest portion of those travelling as part of an organised group tour, except “Other Asia” but namely, China (6%) and East Asia (11%). It is also evident that Chinese travellers, along with those from European countries and the UK are amongst the largest portion of visitors travelling in family or friend groups with adults over 16 years of age. Comparatively, those from East Asian origins are the only group that is seeing a larger portion of family and friend groups travelling with children under the age of 16 compared with those over 16 (21% with children under 16, 18% with adults over 16).

The average number of people travelling in a group is presented in Table 1. It should be noted, however, the North American sample was affected by US marines travelling on deployment (approximately 5,000 defence personnel). The average for this group should, therefore, be ignored as it is not an accurate reflection of the average travel party size.

Table 1: Average travel group size

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Zealand (NZ)</td>
<td>1</td>
<td>9</td>
<td>2.21</td>
<td>1.427</td>
</tr>
<tr>
<td>China (CN)</td>
<td>1</td>
<td>33</td>
<td>4.55</td>
<td>6.592</td>
</tr>
<tr>
<td>East Asia (EA)</td>
<td>1</td>
<td>100</td>
<td>6.47</td>
<td>12.222</td>
</tr>
<tr>
<td>Other Asia (OA)</td>
<td>1</td>
<td>10</td>
<td>2.01</td>
<td>1.596</td>
</tr>
<tr>
<td>Europe (EU)</td>
<td>1</td>
<td>8</td>
<td>2.26</td>
<td>1.376</td>
</tr>
<tr>
<td>United Kingdom (UK)</td>
<td>1</td>
<td>52</td>
<td>3.2</td>
<td>5.752</td>
</tr>
<tr>
<td>North America (NA)</td>
<td>1</td>
<td>5000</td>
<td>56.92</td>
<td>469.476</td>
</tr>
<tr>
<td>Rest of the World (RW)</td>
<td>1</td>
<td>36</td>
<td>2.87</td>
<td>5.333</td>
</tr>
</tbody>
</table>

Education, in one hand, appears to be an important component of Asian visitations, particularly for the Chinese. Travelling to Queensland for the main purpose of education, was the second largest contributor to the Chinese sample and the largest overall in terms of
educational travel. On the other hand, Chinese travellers were the lowest overall contributor in relation to Visiting Friends or Relatives (VFR = 14%). Holiday/leisure travel is the dominant travel style for Chinese, East Asian and European visitors, whereas those from New Zealand and the UK are predominantly in Queensland to visit family or relatives.

Queensland Sub-Regions Profile

This section provides a brief overview of the sample collected in relation to the sub-regions that are within Queensland (Figure 3). The sample obtained resulted in an underwhelming number of responses from visitors who had spent time in the Great Barrier Reef (GBR), Mackay and Rockhampton (MR), Bundaberg and Gladstone (BG) and Outback (OUT) regions which brings into question, the reliability of results in relation to these regions (Table 3). The focus will, therefore, be on the Tropical North (TN), Sunshine Coast (SUN), Brisbane (BRI) and Gold Coast (GC) regions, where the sample size was largest (unless otherwise stated, ‘all regions’ means TN, SUN, BRI and GC regions from this point forward).

Figure 3: Queensland tourism sub-regions proposed for this study
Detailed in Table 2 is the ranking of the most popular sub-regions in terms of visitor numbers for the entire sample. The Brisbane region (BRI) was ranked first with the majority of respondents (n=543, 68%) having spent at least one night in the region. As the survey was conducted in the BRI region, this trend was no surprise. The Gold Coast (GC), Sunshine Coast (SUN) and Tropical North (TN) were the next most visited regions in the state with 32.7% (n=268), 22.5% (n=184) and 19.2% (n=157) of the sample respectively.

Table 2: Sub-regions visited by the international passengers (n=819).

<table>
<thead>
<tr>
<th>Queensland Sub-Region</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brisbane (BRI)</td>
<td>543</td>
<td>66.3%</td>
</tr>
<tr>
<td>Gold Coast (GC)</td>
<td>268</td>
<td>32.7%</td>
</tr>
<tr>
<td>Sunshine Coast (SUN)</td>
<td>184</td>
<td>22.5%</td>
</tr>
<tr>
<td>Tropical North (TN)</td>
<td>157</td>
<td>19.2%</td>
</tr>
<tr>
<td>Great Barrier Reef (GBR)</td>
<td>88</td>
<td>10.7%</td>
</tr>
<tr>
<td>Mackay and Rockhampton (MR)</td>
<td>50</td>
<td>6.1%</td>
</tr>
<tr>
<td>Bundaberg and Gladstone (BG)</td>
<td>46</td>
<td>5.6%</td>
</tr>
<tr>
<td>Outback QLD (OUT)</td>
<td>16</td>
<td>2.0%</td>
</tr>
</tbody>
</table>

Table 3 shows two distinct relationships between the BRI and GC regions and also the BNE and SUN regions. The data suggest that the combination of a trip to BRI with either a trip to the GC or SUN region is a popular choice for many travellers. Combining a visit to BRI with at least one night at the GC region was the choice of 14.8% (121) of the sample, with two-thirds of whom (82) had arrived in Australia via BNE. Overall, the combination of visiting BRI with any of the other sub-regions was the most common. However, an exemption exists in the combination of TN with GBR. For TN visitors, combining at least one night in the GBR region (7.8%) was more common than the combination with BRI (7%).
Chinese visitors favour the BRI and GC regions over any other destination in Queensland (Figure 4). The Asian markets are all similar. However there appears to be a preference for the SUN region over the TN for visitors from East and other Asia compared with those from China who prefer the TN region. European travellers were the most evenly distributed group, across the four sub-regions. Unlike the Chinese and East Asian markets, that were heavily in favour of the GC over the northern sub-regions, European travellers attributed the lowest percentage of travellers to the BRI region of any other group, and the largest percentage of travellers who had visited the TN region.

Table 4: Sample size per region

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Brisbane</th>
<th>Gold Coast</th>
<th>Sunshine Coast</th>
<th>Tropical North</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Zealand (NZ)</td>
<td>76</td>
<td>40</td>
<td>42</td>
<td>9</td>
</tr>
<tr>
<td>China (CN)</td>
<td>40</td>
<td>31</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>East Asia (EA)</td>
<td>83</td>
<td>52</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td>Other Asia (OA)</td>
<td>70</td>
<td>25</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Europe (EU)</td>
<td>92</td>
<td>55</td>
<td>57</td>
<td>69</td>
</tr>
<tr>
<td>United Kingdom (UK)</td>
<td>59</td>
<td>27</td>
<td>32</td>
<td>23</td>
</tr>
<tr>
<td>North America (NA)</td>
<td>78</td>
<td>20</td>
<td>14</td>
<td>26</td>
</tr>
</tbody>
</table>
Dispersal of international travellers in Queensland

This section provides an analysis of the variation in travel behaviour and dispersal between China and the different travel market segments discussed in Part One. As previously mentioned, small samples in the certain sub-regions reduced reliability of those results. Once the market groups were created, this further reduced the reliability of data related to GBR, MR, BG and OUT. For this reason, any comparison between markets in those regions has limited explanatory power (in particular Chinese).

The top four regions visited by Chinese tourists were TN, SUN, BRI and GC which can be seen in Figure 5. The size of the circle in each sub-region represents the number of travellers.
from the sample to stay at least one night in that sub-region and the red segment represents the Chinese portion.

Figure 5: Chinese visitors per sub-regions vs all other sample (n=819)

BNE was the dominant entry point for all market groups arriving in Australia, particularly for the Asian and ROW markets, who were less likely than those from long-haul origins such as the UK, Europe and North America, to use an alternative gateway (Figure 6).
Figure 6: Airport used to arrive in Australia (n=819).

Figure 7 shows that European and UK travellers are by far the most spatially active group in Queensland. Visitors from Europe and the UK were the only market group (other than 1% of Chinese travellers) who identified visiting more than four sub-regions. This fact may suggest a link between visitors from long-haul destinations visiting more regions compared to those from short-haul origins such as Asian countries or New Zealand. This trend is not the case, however, for North American travellers, as only 5% of North Americans reported visiting 3 or more sub-regions.

China is the 3rd most likely to visit 3 or more regions (behind Europe and the UK), which does not evenly compare to other Asian markets. The Asian travellers other than China appear to be far less likely to visit multiple regions.
The Trip Index approach proposed by Pearce and Elliot (1983) has been adopted to compare the market segments visiting the BRI, GC, SUN and TN regions to determine how these destinations fit into the overall context of a trip by ranking the percentage of travellers making; short stops (TI=1-10), intermediate stops (TI=11-20), long stops (TI=21-50), primary stops (TI=51-99) and only destination stops where the entire trip was spent in that location (TI=100). For the BRI region, the greatest similarities can be seen in comparing China with East Asia, Europe and the UK, and the four remaining market groups with each other.

More than half of New Zealand, North America, Other Asia and Rest of the world (ROW) travellers have visited Brisbane as the sole destination (Trip Index of 100). The main difference between these four groups, being that the general pattern for Other Asia and Rest of the world travellers is to invest larger portions of their trip in the BRI region, while very few are making short stops (4.5% ROW, 1.4% Other Asia - Trip index between 1-10). Whereas, North American and New Zealand travellers have a higher tendency to make short
stop overs in the region (10.5% New Zealand, 14.5% North America – Trip index between 1-10).

For China and East Asian travellers, BRI is mostly visited as a long, primary, or the only destination with more than four out of five respondents from both market groups recording a Trip Index within the range of 21-100. However, unlike the four groups previously mentioned, there are fewer travellers from China and East Asia who make BRI the sole destination in a trip, rather there is a more even distribution of travellers who are making long, primary and only destination visits to the region.

The remaining market segments, Europe and the UK, are the most unique for the BRI region. Unlike all other groups who saw the largest portion of respondents making only destination stops in the region, the largest portion of European travellers was making short stops while UK travellers were most likely to make a long stop. Overall, there is a significantly larger representation of travellers from both the UK and Europe using BRI as a short to intermediate stopover destination than any other market group (29.8% of UK travellers, 43.4% of European traveller)

Table 5: Trip Index per market segment – Brisbane (%).

<table>
<thead>
<tr>
<th>Trip Index BRI</th>
<th>NZ</th>
<th>CN</th>
<th>EA</th>
<th>OA</th>
<th>EU</th>
<th>UK</th>
<th>NA</th>
<th>RW</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-10</td>
<td>10.5</td>
<td>5.0</td>
<td>1.2</td>
<td>1.4</td>
<td>27.8</td>
<td>19.3</td>
<td>14.5</td>
<td>4.5</td>
</tr>
<tr>
<td>11-20</td>
<td>6.6</td>
<td>10.0</td>
<td>13.3</td>
<td>0</td>
<td>15.6</td>
<td>10.5</td>
<td>5.3</td>
<td>4.5</td>
</tr>
<tr>
<td>21-50</td>
<td>17.1</td>
<td>22.5</td>
<td>21.7</td>
<td>14.5</td>
<td>15.6</td>
<td>28.1</td>
<td>17.1</td>
<td>13.6</td>
</tr>
<tr>
<td>51-99</td>
<td>14.5</td>
<td>25.0</td>
<td>19.3</td>
<td>15.9</td>
<td>21.1</td>
<td>17.5</td>
<td>13.2</td>
<td>27.3</td>
</tr>
<tr>
<td>100</td>
<td>51.3</td>
<td>37.5</td>
<td>44.6</td>
<td>68.1</td>
<td>20.0</td>
<td>24.6</td>
<td>50</td>
<td>50</td>
</tr>
</tbody>
</table>

The primary mode of transport used by all groups to arrive in the BRI region was the air transport. As the BRI region was the point of entry to Australia for the majority of respondents (Figure 6), this was no surprise. Two-thirds of the Chinese visitors arrived by air (65%), with 14% arriving by private car and 10% by train. Among all markets, Chinese visitors had the highest participation regarding arriving by train. European travellers, for instance, had the lowest participation in terms of use of air transport to arrive in BRI, with only 52%. However, they had the highest combination of both private (15%) and rental
(24%) cars. In fact, Europeans had the highest participation in the use of rental car, emphasizing the higher tendency of this market to disperse while travelling in Australia.

Market groups are not demonstrating the same similarities or stopover choices for their visits to the GC as were evident for the BRI region. Just over three in five Chinese travellers made a short to intermediate stop at the GC with almost 40% in the intermediate range. Only one in five stayed for more than half of their total trip in the region. This result is opposed to East Asian, New Zealand, North America, Other Asian and ROW visitations which all see the majority of trips in the long to only destination range. Long to only destination stops are rare for European and UK travellers and rather, prefer short or intermediate stop overs in the GC region.

Table 6: Trip Index per market segment – Gold Coast (%)

<table>
<thead>
<tr>
<th>Trip Index GC</th>
<th>NZ</th>
<th>CN</th>
<th>EA</th>
<th>OA</th>
<th>EU</th>
<th>UK</th>
<th>NA</th>
<th>RW</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-10</td>
<td>5</td>
<td>21.4</td>
<td>8</td>
<td>29.2</td>
<td>40.4</td>
<td>46.2</td>
<td>15</td>
<td>11.1</td>
</tr>
<tr>
<td>11-20</td>
<td>5</td>
<td>39.3</td>
<td>8</td>
<td>8.3</td>
<td>19.1</td>
<td>23.1</td>
<td>15</td>
<td>11.1</td>
</tr>
<tr>
<td>21-50</td>
<td>17.5</td>
<td>14.3</td>
<td>40</td>
<td>25</td>
<td>17</td>
<td>7.7</td>
<td>20</td>
<td>11.1</td>
</tr>
<tr>
<td>51-99</td>
<td>35</td>
<td>3.6</td>
<td>18</td>
<td>12.5</td>
<td>10.6</td>
<td>7.7</td>
<td>15</td>
<td>11.1</td>
</tr>
<tr>
<td>100</td>
<td>37.5</td>
<td>21.4</td>
<td>26</td>
<td>25</td>
<td>12.8</td>
<td>15.4</td>
<td>35</td>
<td>55.6</td>
</tr>
</tbody>
</table>

Arrival to the GC region for all visitors is mostly via the road network in either a private or rental car (Figure 8). However, for Chinese, East Asia and ROW travellers there is a higher incidence of the use of bus/coach transportation compared with all other groups. It is also evident that the Chinese are far more likely to use a bus/coach instead of a train to access the region compared with their Asian counterparts and all other groups.
Just over a third of Chinese trips to the SUN region were short stops, which was the largest portion of responses for Chinese travellers in this region, while just over 10% made the SUN their only destination. The SUN region appears to support a general trend of shorter stopovers, particularly for European and RW groups, which both have more than half of respondents making a short stop in the region.

Table 7: Trip index per market segment – Sunshine Coast (%)

<table>
<thead>
<tr>
<th>Trip Index SUN</th>
<th>NZ</th>
<th>CN</th>
<th>EA</th>
<th>OA</th>
<th>EU</th>
<th>UK</th>
<th>NA</th>
<th>RW</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-10</td>
<td>7.1</td>
<td>33.3</td>
<td>20</td>
<td>11.1</td>
<td>51.1</td>
<td>19.4</td>
<td>15.4</td>
<td>57.1</td>
</tr>
<tr>
<td>11-20</td>
<td>11.9</td>
<td>11.1</td>
<td>10</td>
<td>11.1</td>
<td>17</td>
<td>29</td>
<td>15.4</td>
<td>28.6</td>
</tr>
<tr>
<td>21-50</td>
<td>28.6</td>
<td>22.2</td>
<td>20</td>
<td>33.3</td>
<td>17</td>
<td>25.8</td>
<td>15.4</td>
<td>--</td>
</tr>
</tbody>
</table>
Access to the SUN region is again, mostly via means of road transportation with variance in the use of a private or rental car and bus/coach across the market segments (Figure 9). However, it is also evident that Chinese preference for bus/coach travel over train is not consistent with the findings in relation to the GC region.

The TN region shows the least consistencies across all market groups, which may be an indication of the smaller sample size collected for this region. For the Chinese travellers, intermediate to long stops are the most common with three out of four trips in this range. New Zealand and ROW visitors tend to stay in the TN on a primary or only destination trip. While for European and UK travellers, their general preference of intermediate to short

<table>
<thead>
<tr>
<th></th>
<th>51-99</th>
<th>14.3</th>
<th>22.2</th>
<th>10</th>
<th>33.3</th>
<th>8.5</th>
<th>12.9</th>
<th>23.1</th>
<th>14.3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100</td>
<td>38.1</td>
<td>11.1</td>
<td>40</td>
<td>11.1</td>
<td>6.4</td>
<td>12.9</td>
<td>30.8</td>
<td>--</td>
</tr>
</tbody>
</table>

Figure 9: Mode of transport used to access the SUN region (n=819).
stopovers is reinforced by three in five Europeans and more than half of UK visitors in that range.

Table 8: Trip Index per market segment – Tropical North (%)

<table>
<thead>
<tr>
<th>Trip Index TN</th>
<th>NZ</th>
<th>CN</th>
<th>EA</th>
<th>OA</th>
<th>EU</th>
<th>UK</th>
<th>NA</th>
<th>RW</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-10</td>
<td>11.1</td>
<td>8.3</td>
<td>20</td>
<td>66.7</td>
<td>37.9</td>
<td>27.3</td>
<td>16.7</td>
<td>--</td>
</tr>
<tr>
<td>11-20</td>
<td>11.1</td>
<td>41.7</td>
<td>--</td>
<td>--</td>
<td>31.8</td>
<td>31.8</td>
<td>8.3</td>
<td>14.3</td>
</tr>
<tr>
<td>21-50</td>
<td>11.1</td>
<td>33.3</td>
<td>40</td>
<td>33.3</td>
<td>19.7</td>
<td>27.3</td>
<td>50</td>
<td>--</td>
</tr>
<tr>
<td>51-99</td>
<td>44.4</td>
<td>8.3</td>
<td>--</td>
<td>--</td>
<td>6.1</td>
<td>13.6</td>
<td>16.7</td>
<td>57.1</td>
</tr>
<tr>
<td>100</td>
<td>22.2</td>
<td>8.3</td>
<td>40</td>
<td>--</td>
<td>4.5</td>
<td>--</td>
<td>8.3</td>
<td>28.8</td>
</tr>
</tbody>
</table>

Likewise the BRI region, the TN sees a much higher percentage of arrivals via air transport (Figure 10). For Chinese, North American and ROW travellers, this is by far the most common mode of transport used to access this region. Other Asia market, on the other hand, see an even distribution of travellers who have used either; plane, rental or a private car to access the region. However, the sample size for Other Asia in this region was too small to provide a conclusive result (n=3). Thus any information relating to this group in the TN region should not be treated as reliable.
Discussion and conclusion
Analysis of the results obtained by surveying outbound passengers at the departure gates of the Brisbane Airport has revealed variations in the characteristics and dispersal patterns of Chinese and other international travel groups. The Gold Coast, Tropical North and Brisbane regions are the most popular sub-regions for Chinese travellers. During a trip to Queensland, those from Chinese, European and UK origins are visiting the most sub-regions of any other market group. However, there is a significant variation in the Trip Index values associated with each market group, in relation to these sub-regions. Namely, the highest variations are noted in the Gold Coast, Sunshine Coast and Tropical North regions. Chinese visitors represent the youngest demographic and were the most likely to visit Queensland for educational purposes but were the least likely to be visiting friends or relatives. Also, travelling as part of an organised tour is most popular amongst Chinese and East Asian markets who have the highest average group sizes of all market groups.
The percentage of visitors travelling on an organised group tour was relatively low across all market segments, with Chinese and East Asian travellers having the largest portion of their sample travelling this way (China=6%, East Asia=11%). This is much lower than expected, particularly for the Chinese sample. Pan and Laws 2002, found this to be the primary type of travel used by Chinese visitors in Australia, however more recently in New Zealand, Becken et al. (2008) using data from the International Visitors Survey did report a decline in Chinese travellers using group tours, finding only 24.8% were on a group tour. This raises the question: Is this trend becoming prominent in Queensland? The results certainly suggest this is the case.

Almost 60% (59%) of Chinese travellers were under the age of 35 which has resulted in a significantly younger sample than any other market group. The Chinese also had the highest percentage of those travelling for education which is the likely cause of such a young sample. Holiday leisure, dominates the purpose of travel for Chinese, East Asian and European travellers. However there are significant differences in the travel preference of these groups. European and UK travellers demonstrate a more evenly distributed percentage of travellers visiting the GC, BRI, SUN and TN regions compared with Chinese and East Asian groups, where there is a clear preference to visit BRI and the GC region. In contrast, the SUN region is far less popular among Asian travellers in general, which may be related to the findings of Kim et al. (2005) who reported that for Chinese leisure travellers, good weather, well-equipped tourism facilities, beautiful scenery and shopping are to be among the biggest influences in choosing a trip destinations. Although the SUN region can facilitate these requirements, the Gold Coast is further developed as a tourism destination, with a wide variety of tourism facilities and shopping opportunities. This would be a likely explanation for the higher degree of popularity the GC region is receiving amongst the Chinese and possibly East and Other Asian markets.

The most spatially active market groups were by far the European and UK travellers, who demonstrated the highest percentage of tourists visiting multiple regions, in particular, the European sample. Almost 30% of Europeans had visited four or more regions which supports some of the findings of Tideswell and Faulkner (1999), who from their work with the Queensland Visitor Survey (QVS) between 1994 and 1995 concluded that visitors travelling from long-haul countries in Europe, and the Americas visit the most number of regions within Queensland. Conversely, short-haul markets such as Japan, Southeast Asia and Far East Asia exhibit tendencies toward single destination travel. While this was consistent with the long-haul origins of the UK and Europe, the results from the BNE survey show that North
American travellers are visiting a limited number of regions, with less than 5% visiting more than two regions and seven out of ten visiting just one. This suggests a shift in travel behaviour for North American visitors, to a less adventurous travel style, while European markets are still exhibiting traditional travel behaviours.

The Trip Index reveals the alternative travel styles across the international traveller markets. For the majority of market groups, the Brisbane region is the point of most significance. It is evident that for most trips to Queensland, excluding European and UK travellers are investing the largest portion of their time in this region. There is a trend across all regions for European and UK travellers to have a larger percentage of trips in the lower ranges of the trip index, this is a further indication that these travellers have a higher propensity to disperse.

Transportation mode choices across all segments reveal that road transport is the most common means to access all regions except Brisbane and the Tropical North, where access via air transport was the most common. This suggests that these two regions are the main gateways for other sub-regions and would, therefore, play an important role in disseminating travel information. It would be of benefit, for future studies to examine the specific routes taken in accessing other sub-regions in Queensland, after arriving through the gateways of Brisbane or the Tropical North. This could assist in potentially facilitating deviations from the main routes to bring the economic benefits of greater traveller dispersal to regional areas which might otherwise be bypassed.

This study was limited in its ability to explain the role of the other sub-regions in Queensland, including the Great Barrier Reef, Mackay/Rockhampton, Bundaberg and Outback regions. Future studies would benefit from obtaining a larger sample from these regions to better understand how they may fit into the context of international visitor trips to help identify how to effectively facilitate dispersal to these regions. Another limitation was experienced with the collection of data in relation to the Chinese market. A larger sample size may have been obtained if communication difficulties had not been encountered.

Travel characteristics of the international visitors to Queensland are diverse. The sub-regions of Queensland are supporting a variety of traveller types. The major difference between the Chinese market and the other international groups is that they are representing a younger demographic and are seeking education. From the information presented in this study, marketing strategies and policy related to increasing dispersal of international visitors can be better informed about the market segments to whom they are targeting.

Acknowledgements
The authors are grateful to Brisbane Airport Corporation, particularly Mr Roel Hellemons (General Manager Strategic Planning & Development), for allowing data collected as part of a Consulting Project with Griffith University to be used in this journal article.

Reference List


