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Understanding Source Market of Chinese Outbound Travel at Regional Level

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Abstract

This study concerns the tourist source market of Chinese outbound travel by justifying a geographic market segmentation approach and examining regional levels of the development. Two different empirical regularities used in urban geography were employed to measure the changes between larger and smaller tourist-generating places from 1997 to 2014. Research findings imply that 1) the tourist volume has been growing over time for all places under investigation with regional diversities; 2) as the scale of mega region (in terms of tourist volume) becomes larger, the small and medium regions respond rapidly to this change, imposing a shift on the whole market from a single dominance to a promising decentralized pattern. The purpose in this paper is to propose different models to account for this evolution. Understanding these implications may help western providers deliver suitable goods and services to China market in different cultural contexts.

Introduction

In the past fifteen years, the Chinese outbound tourism market has witnessed explosive growth due to the national reform and open-door policy, other relaxed government agreements and the increased individual disposable income. From 2001 to 2014, the market expanded at an average rate of 19 percent per year with little evidence of future decline [1]. In 2014, Mainland Chinese citizens made a record 107 million outbound visits [2]. The China Tourism Academy estimates that the number will hit 120 million by 2015, making China the largest source of outbound travel in the world [2].

As is known to all, China is a huge country with substantial geographical, cultural, and economic disparities, satisfying and meeting their expectations will require a combination of insight into culturally specific behaviors, favorites, beliefs and other habits. Successful western marketers should be well-prepared to cater to the Chinese tourists from different part of China by adding social and psychological familiarity and comfort to products and services offered. Therefore, before going any further, it is crucial for both the destination marketing organizations to understand the tourist source market with regional disparities of China outbound tourism.

This booming not only exerts a major force propelling the development of the world's outbound tourism, leading to a shift of the global tourism center from the west to the east, but also has recently attracted much research attention in the academia [3-32]. Nevertheless, this market has not been well understood to western countries, and there is still a lot work to do. The extant quantitative researches on the China outbound market mainly focus on: 1) examining the determinants [3,6,26], characteristics [25,30,32], impacts [8,9,27] or trends [5,7,8] of outbound Chinese travel in a homogenous manner; 2) conducting to specific destinations (countries/regions) [11,14,18,23]; 3) making international companions with foreign countries[13,15,28]. Studies on the market structure and its evolution, however, are surprisingly rare in the tourism literature. Only a handful of related contributions of the Chinese outbound travel market have been made to date [14,19,20,31]. Since China is an idiosyncratic market with regional diversities, this heterogeneity should not be neglected when examining the market within the country. This study seeks to provide a better understanding of this market, from the point of view on substantial generating areas over the past years.

Methodology

The objective of the present study is the Chinese outbound leisure travel market. The research defined "Chinese outbound leisure travelers" as a resident of Mainland China who travels abroad for leisure purpose, on his/her own expenses. Abroad includes trips to Hong Kong and Macao. For simplicity, only those on tour groups organized by travel services were considered. To investigate the source market, this study first identified the target areas, and then analyzed the market distribution. Specifically, the research was conducted in four steps:

Step 1: Identifying target areas

Since the primary concern of this research is with variations in the distribution of a whole country's market into component subareas, a preliminary task is to determine how the partition is made. Due to insufficient statistical work of China tourism bureau, consecutive data for a long time range were available for only six subareas, instead of thirty-four provinces (or municipalities) throughout the whole country. These subareas include Beijing, Shanghai, Guangdong, Zhejiang, Jiangsu and Sichuan, which happens to keep reasonable geographic balance and regional representation as follows:

(1) Beijing, Shanghai, and Guangdong have been consistently regarded as major outbound-tourist-generating areas in China, while the rest are the country's most promising tourist-generating markets. These six areas dominate the top 8 places of

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outbound tourism market for the recent years [1] and therefore are representative.

(2) It is well-recognized that north China region (where Beijing is), eastern coast (where Shanghai, Jiangsu and Zhejiang are), south China region (where Guangdong is) and the southwest China region (where Sichuan is) cover the majority of Chinese outbound tourism market [29]. Each of these four regions is predominantly urban and industrialized, representing the country's major concentration of economic growth. This partition of the country into the four regions allows us to contrast regional levels of development.

Step 2: Data collection

Considering it was not until late 1990s that the Chinese government officially recognized the existence of a Chinese outbound market [4,17] we selected the amount of outgoing tourists (unit: person-trips) ranging from 1997 to 2014 as the research sample. The data, throughout a period of 18 years, were derived from local government bureau (i.e. provincial tourism administration), as reported in Table 1.

Step 3: Analytical methodologies

This study applied law of the primate city and the rank-size rule, both of which have been frequently used in urban geography since the 1920s, to investigate the source market of Chinese outbound tourism for subareas.

Law of the primate city

In 1939, Jefferson termed the largest city of a country the primate city and measured a country's primacy by calculating the size of the second largest city as a percentage of the largest one [33]. With data for 51 countries, he showed that the primate city was often two times larger than the second ranking one, although this ratio exhibited wide variation. Such regularity was called "law of the primate city".

The rank-size rule

Zipf, half a century ago, found that city sizes obey an astonishingly simple distribution law [34], which is called Zipf's law or the rank-size rule. It is equivalent to Pareto's distribution and can be expressed mathematically as follows,

$$P_i = KR_i^{-q}$$

Where R_i is the rank (in decreasing order of size) of the ith city, P_i is its size (i.e. population), K is a constant, and q is sometimes called Zipf's dimension, which is actually the reciprocal value of fractal dimension defined by Pareto. The constants are more easily interpreted from the logarithmic form of the rank-size equation,

$$\log P_i = \log K - q \log R_i$$

Ever since the emergence of these two regularities, many worthwhile results have emerged from attempts to relate national distributions of city sizes to levels of economic development.

Step 4: Calculation

For the aforementioned dataset, law of the primate city was carried out by simply substituting the number of organized outbound travelers (tourist volume hereinafter) for the city population, whereas the rank-size rule was conducted as follows. We first ordered the largest provinces by the tourist volume for each year: for example, for 1997, number 1 is Guangdong; number 2 is Beijing, and so on. Then, by employing a natural logarithmic transformation, we drew a graph:

along the x-axis, plot the log of the rank (Guangdong has log rank ln 1, Beijing has log rank ln 2); and along the y-axis plot the log of the tourist volume of the corresponding place. Finally, a test was constructed by estimating, through ordinary least squares, the regression of the rank-size equation to get the estimate of log K and -q.

Results and Findings

Law of the primate city

The primacy ratios are reported in Table 2. To simplify the comparison, the corresponding graph is also included, as depicted in Figure 1.

The regularity reveals that if the largest city is primate, the primacy ratio should be over 2 [33]. According to this, our study demonstrates good performance on the outbound tourist volume since the premise holds for all cases. From Figure 1, we find that the entire curve, in spite of some oscillations, has a tendency to decline over time. It has the appearance that the gap between the first two places will be further narrowed if this trend continues.

Years\Provinces	Beijing	Shanghai	Jiangsu	Zhejiang	Sichuan	Guangdong
2014	4102000	2340833	1514770	2027000	1237900	8605379
2013	3309704	2294146	1212951	1786000	742000	7741884
2012	2725000	1728163	907000	1606000	768000	6632016
2011	1842741	1324445	630269	1197700	568952	5758700
2010	1495792	1168600	497306	1002000	475281	4380100
2009	848742	858643	344300	620000	272794	3567765
2008	1020443	737821	356100	399100	163998	3586607
2007	1002000	689100	331900	361400	269010	3820428
2006	791852	585400	313100	289000	153704	2564519
2005	517144	517100	257000	229400	120833	1992028
2004	513766	498600	250000	297000	105928	1715909
2003	318807	287700	118700	171512	64321	1251900
2002	285415	189100	107000	157600	135700	1215500
2001	218869	148200	38000	116100	92600	1039300
2000	137106	112100	42300	73000	82679	1162000
1999	110505	102000	65672	58200	59000	933500
1998	65500	63000	29268	42800	-	732900
1997	60500	44000	13480	22200	-	597400

Table 1: Number of organized Chinese outbound tourists for the six places of each year.

Year	Ratio
2014	2.0978
2013	2.3391
2012	2.4338
2011	3.1251
2010	2.9283
2009	4.1551
2008	3.5148
2007	3.8128
2006	3.2386
2005	3.852
2004	3.3399
2003	3.9268
2002	4.2587
2001	4.7485
2000	8.4752
1999	8.4476
1998	11.1893
1997	9.8744

Table 2: Primacy ratios for each year.

Specifically, Guangdong province has always generated the highest number of outgoing tourists, rendering the primate distributions, while Beijing contributes less large, apart from 2009. To analyze further, two distinct periods can be characterized from Figure 1. The tourist volume was highly concentrated in Guangdong during the first period of 1997-2000. In this period, Guangdong alone accounts for over 70 percent of China's outbound traveler volume per year. This is not surprising because of the perception of its relative visiting ease due to the geographical adjacency to Hong Kong and Macao. In the second period of 2001-2014, Guangdong still occupies a dominant position, but Beijing has seen fast growth with strong momentum in the past fourteen years. This is owing to Beijing's obtained ADS to European countries like France, Switzerland and Italy, and aggressive marketing efforts such as granting visa free access to Russia and multiple entries to Singapore in the early 2000s (from 2001 to 2004), while Guangdong focused on reinforced legal supervision imposed on travel agencies, thus resulting in a slow growth in the early inception of this period. After that, both places stepped, whether forward or backward, at almost the same rate.

In summary, over the past eighteen years, Guangdong can still overwhelm any other province in outbound market, but the resultant primacy ratios reflect that the diversity has been diminishing.

The rank-size rule

The regression results are reported in Table 3.

According to Zipf's law, if the data yield a good fit, the tourist volume distribution (after transposed to log) can be represented by a straight line with a slope of $-q$. From the experimental results, in all cases Zipf's law holds almost perfectly. That is, while the largest province tends to show primacy, the rest of the distribution will be, as expected, to fulfill the rank-size rule.
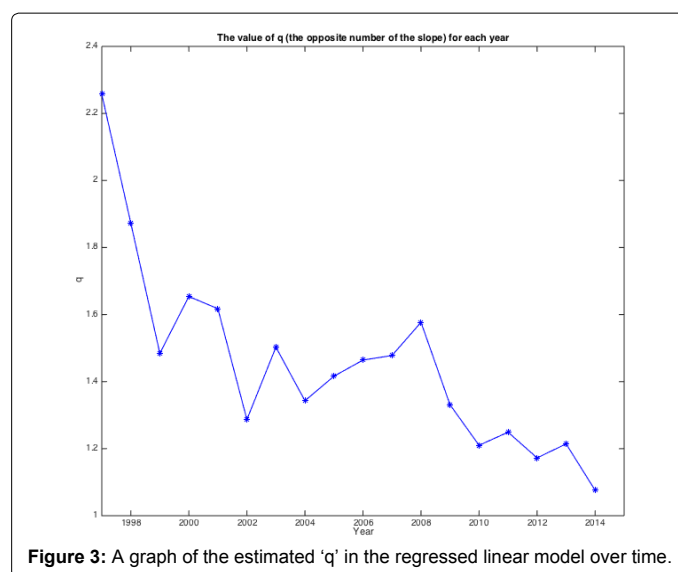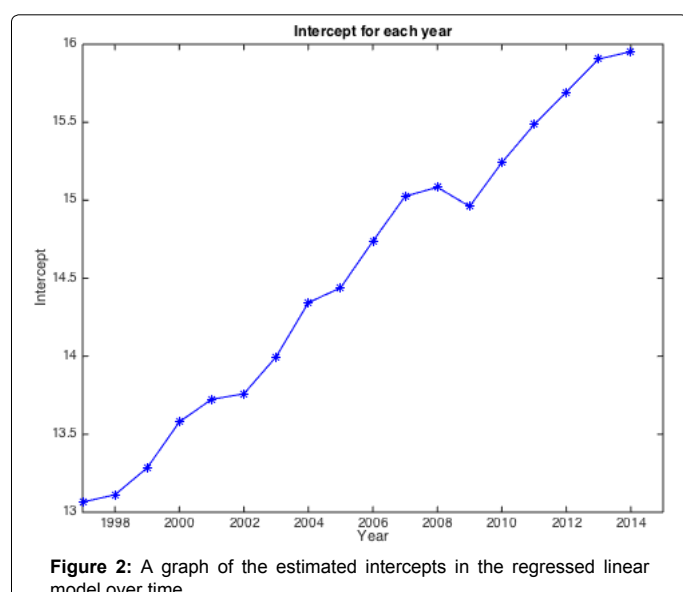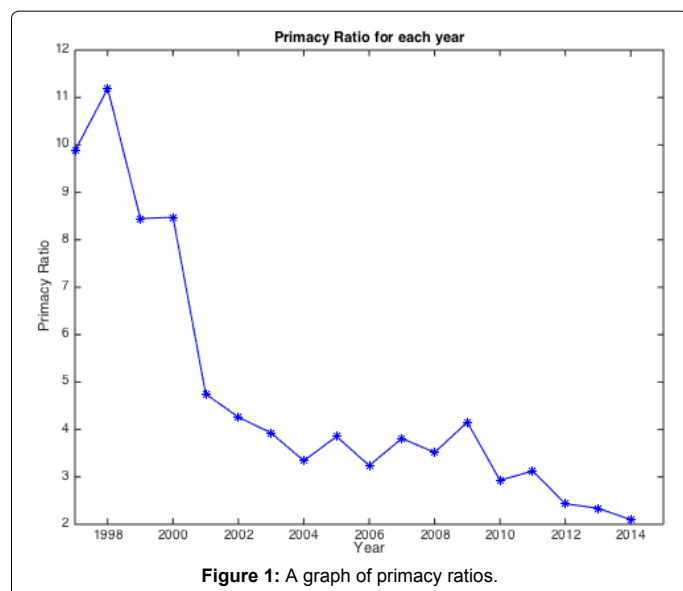
The intercept and slope values are noted to have changed, and these are interpreted to indicate the relative rates of growth or decline of large and small centers, which will be discussed in the following paragraphs.

First, the regression results for the eighteen successive years clearly show an increasing intercept, from 13.0651 in 1997 to 15.9533 in 2014. It has been continuously increasing, except for a little decline in 2009, as described in Figure 2. The financial crisis and influenza A (H1N1) may be primarily responsible for this decline. The changing of intercept reveals that all places under study have been attracting, with rapid but un uniform growth over time, more and more domestic people to travel abroad. This is the case of the real world situation.Secondly, the value of 'q', which is inverse number of the slope, is noteworthy. The rank-size distribution can be interpreted as a very general model according to this value. As an index of the relative frequency of small, medium, and large areas [35], for the case of city populations, if q = 1 implies the restrictive rank-size rule, q>1 represents metropolitan dominance while q<1 stands for an outbound system in which intermediate cities (such as regional capitals) are relatively large [36]. In our study, for the whole time series, the obtained value of 'q' is larger than one. According to Richardson's model, the distribution is mainly determined by the growth of the largest region, namely, Guangdong province. The results also show that the entire curve of 'q' decreases with time, in spite of some oscillating behaviors, as demonstrated in Figure 3. To make the analysis more specific, we further examined the intercept and 'q'.

Year	Regressed Linear Model	R²	p-value
2014	$\log P_i = 15.9533 - 1.0757 \log R_i$	0.9940	0.0000
2013	$\log P_i = 15.9050 - 1.2142 \log R_i$	0.9733	0.0003
2012	$\log P_i = 15.6934 - 1.1725 \log R_i$	0.9791	0.0002
2011	$\log P_i = 15.4848 - 1.2491 \log R_i$	0.9669	0.0004
2010	$\log P_i = 15.2416 - 1.2100 \log R_i$	0.9595	0.0006
2009	$\log P_i = 14.9603 - 1.3310 \log R_i$	0.9424	0.0013
2008	$\log P_i = 15.0836 - 1.5768 \log R_i$	0.9700	0.0003
2007	$\log P_i = 15.0255 - 1.4779 \log R_i$	0.9787	0.0002
2006	$\log P_i = 14.7374 - 1.4643 \log R_i$	0.9767	0.0002
2005	$\log P_i = 14.4393 - 1.4161 \log R_i$	0.9476	0.001
2004	$\log P_i = 14.3436 - 1.3429 \log R_i$	0.9204	0.0024
2003	$\log P_i = 13.9963 - 1.5028 \log R_i$	0.9581	0.0007
2002	$\log P_i = 13.7592 - 1.2868 \log R_i$	0.9410	0.0013
2001	$\log P_i = 13.7237 - 1.6175 \log R_i$	0.9467	0.0011
2000	$\log P_i = 13.5794 - 1.6540 \log R_i$	0.9072	0.0033
1999	$\log P_i = 13.2844 - 1.4842 \log R_i$	0.8599	0.0077
1998	$\log P_i = 13.1120 - 1.8728 \log R_i$	0.8851	0.0171
1997	$\log P_i = 13.0651 - 2.2571 \log R_i$	0.9628	0.0031

Table 3: Regression results for each year.

Because the intercept almost monotonically increasing, the main focus is 'q'. In studying the trend of 'q' along the elapse time, we find that the value of 'q' decreases steadily, except for the years of 2004-2008 and two abrupt increasing years (2000 and 2003). By casual observation of the estimated regression coefficients as a whole along the elapse time, we separate the evolution into three segments. Specifically, from 1997 to 2002, the rank-size system of China outbound tourism market has experienced an increase in the size of medium and small places, at a much faster rate than that of large places. For example, the amount of Jiangsu and Zhejiang in 2002 is seven times larger than that in 1997, whereas the amount of Beijing and Guangdong is merely four times during the same time period, as can be seen from Table 1. This evidences the incipient stage of this evolving market. From 2004 to 2008, the change is owing to the rapid growth taking place in larger areas to force the slope of the distribution to steepen to meet the increased intercept, but without an actual decline in small areas. This conforms to the real world phenomenon of Guangdong and Beijing, whose tourist volume of 2008 is nearly twice as that of 2004 for each.

Figure 1: A graph of primacy ratios.

Figure 2: A graph of the estimated intercepts in the regressed linear model over time.

Figure 3: A graph of the estimated 'q' in the regressed linear model over time.

From 2009 to 2014, the figure indicates that all six places are growing, with smaller places growing at a faster rate. Table 1 shows evidence that Guangdong doubles its amount during this period, whereas both Zhejiang and Sichuan quadruple each amount.

According to the rank-size rule, we can conclude the China outbound tourism market has experienced an increase in the size of medium and small places, at a much faster rate than that of large places (for the case of 1997-2002, 2009-2014), or at the same speed with larger places (for the case of 2004-2008). In other words, the intermediate and small places exhibit an incredible momentum of increasing to force the slope of the rank-size distribution to become flat or smoother.

Conclusions and Discussions

From source-markets' point of view, this study concentrates on the market of Chinese outbound travel by examining four major regions constituted of six priority places (provinces or municipalities). Two famous regularities frequently used in urban geography were introduced to help achieve the above goal. Bearing in mind the limited nature of the analysis that has been undertaken here, it is possible to state the following conclusions about the growth explosions of Chinese outbound tourism within regions: primacy was found for the six nodal places delimited from 1997 to 2014; the growth was first governed by south China region in the early years, but the rest started gradually making a 'comeback'.

The results reveal that the growth progressively shifts from a single dominance to an overall blossom. An understanding of the various profiles the Chinese market will not only clarify the distribution, but also help focus on Chinese tourists as clusters/individuals rather than part of a homogeneous group. While destination marketers pay attention to current marketing effort on the largest area of south China, those eastern, northern or even inland should not be neglected. This means that they must tailor some of their services to accommodate visitors from different parts of China, according to their cultural differences and behavioral characteristics.

Findings in this study could be vulnerable to criticism in that half of the selected places were highly screwed to the east part of the country, while the other parts of China should be acknowledged as they could affect and skew the research results. Owing to data availability,

the lack by the absence of individual tour is also conspicuous. On the other hand, how these two growths (in larger areas and smaller areas) significantly contribute to the total change of the rank-size distribution from a separate estimation is not readily verified from this study. To do this, a rigorous examination with certain statistical theory is needed. All these will be part of our future work.

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