

<http://ansinet.com/itj>

ITJ

ISSN 1812-5638

INFORMATION TECHNOLOGY JOURNAL

ANSI*net*

Asian Network for Scientific Information
308 Lasani Town, Sargodha Road, Faisalabad - Pakistan

Influence of Cultural Difference on Inbound Tourists Based on Gravity Model

¹Guo Cong and ²Gu Yaqing

¹Faculty of Foreign Languages and Literatures,

Qianjiang College of Hangzhou Normal University, Hangzhou, China

²Department of Tourism Planning, tourism college of Zhejiang, Hangzhou, China

Abstract: The cultural difference has found expression in gravity model to analyze its influences on inbound tourists, exemplified by Zhejiang Province. The results shows :on one hand, negative effects are considered to exist; on other hands, the inbound tourists are mostly attracted by cultural differences, exemplified by Zhejiang Province. Cultural difference is both positive and negative and the undertaking tourism development should take cultural ingredients into consideration and the development and marketing of inbound tourism should be carried out effectively.

Key words: Gravity model, cultural difference, inbound tourism, Zhejiang province

INTRODUCTION

With the improving of China's economic power and the increasing of its international influences, the scale of inbound tourism is developing rapidly. According to World Travel Organization, China will be the biggest tourism target country by the year of 2020 and 137 million of visitors will be received (Helpman and Krugman, 1985; Anderson and van Wincoop, 2003).

Theoretically, one of the key resources for tourism is cultural resources, however, it is double-edged, both positive and negative. For one part, its existence diversifies every different culture and draws the attentions from other cultural groups positively. For another, it leads to cultural conflict, cultural indifference and cultural resistance which influences the development scales and speed of inbound tourism negatively (Bergstrand, 1985, 1989).

Tourism is well developed in Zhejiang Province and its tourists are from many parts of the world. Therefore, the regional cultural interaction, communication and influences are really necessary and the cross-cultural activities in tourism are very obvious. The inbound tourists will have great influences on Zhejiang Province in such ways as social structure, values, living pattern, customs and cultural features. This study is based on the first-hand materials from field collection. From the perspectives of tourism decision, tourism resources preference, guest-host interaction and tourism destination (Crimp, 1983; Hofstede and Bond, 1988), this study, by means of systematic methods and statistical analysis methods, gives field research to the cultural tourist

behaviors and reveals the cross-cultural tourism behavior features of inbound foreign tourists in Zhejiang Province (Kogut and Singh, 1988).

The gravity model focuses on cultural difference to test and analyze the influences on inbound tourism imposed by cultural differences, exemplified by Zhejiang Province to test the results.

GRAVITY MODEL

The most recent researches change the variants of gravity model to meet the needs of research target. But for the products trade field, the gravity model is seldom applied in tourism and less for cultural difference in tourism (Leamer, 2002; Linnemann, 1966; Poyhonen, 1963). From the perspective of statistics, the analysis on tourism is partially statistically analyzed for the most part. In this study, the adoption of the revised gravity model and the variant of cultural distance helps to analyzes the influences on inbound tourism by means of cultural distance indexes and panel data.

The equation is as follows:

$$TR_{jc} = \beta_0 GDP_c^{\beta_1} (GNI/N)_j^{\beta_2} GD_{ju}^{\beta_3} CD_{ju}^{\beta_4} \varepsilon$$

TR_{jc} is the total number of people targeting at China's tourism; GDP_c is the GDP for China; (GNI/N) is the income per capita; GD_{ju} is the distance between China and any another country; CD_{ju} is the cultural distance between China and any another country (Table 1).

Table 1: Cultural distance index

Country (area)	Cultural distance index
America	2.714
Canada	2.460
Britain	2.740
France	2.420
Germany	2.310
Italy	2.360
Holland	3.590
Switzerland	2.230
Sweden	3.820
Singapore	0.350
The Philippines	0.230
Thailand	1.030
Japan	2.430
Korea	1.690
Hong kong	0.120
Tai Wan	1.030

Table 2: Assessment of random effects (A*0) in different countries and areas

Country (area)	Results
America	2. 005908
Canada	0. 696786
Britain	0. 643478
France	0. 025464
Germany	0. 021962
Italy	-0. 731780
Holland	0. 035184
Switzerland	-2. 441152
Sweden	-0. 393058
Singapore	-1. 700419
The Philippines	0. 068796
Thailand	0. 086397
Japan	0. 373675
Korea	-0. 674252
Hong kong	1. 978418
Tai Wan	0. 004595

To continue the model assessment, the formerly formed gravity model should be transformed into natural log linear model that is:

$$\begin{aligned} \text{LN}(\text{TR}_{je}) &= \text{LN}\beta_0 + \beta_1\text{LN}(\text{GDP}_c) \\ &+ \beta_2\text{LN}(\text{GNI}/N)_j \\ &+ \beta_3\text{LN}(\text{GD}_{ju}) \\ &+ \beta_4\text{LN}(\text{CD}_{ju}) + \varepsilon \end{aligned}$$

Since, CD_j has taken the form of index, the former variants can be taken directly; in the meanwhile, to make the model more intuitive inform, the model can be rewritten as:

$$T = \partial_0 + \partial_1X_1 + \partial_2X_2 + \partial_3X_3 + \partial_4X_4 + \varepsilon$$

Among them:

$$T = \text{LN}(\text{TR}_{je})$$

$$\partial_0 = \text{LN}\beta_0$$

$$\partial_1X_1 = \beta_2\text{LN}(\text{GNI}/N)_j$$

$$\partial_2X_2 = \beta_3\text{LN}(\text{GD}_{ju})$$

$$\partial_3X_3 = \beta_1\text{LN}(\text{GDP}_c)$$

$$\partial_4X_4 = \beta_4\text{LNCD}_{ju}$$

TEST OF MODEL AND ANALYSIS

According to the needs of model and analysis, the multi-linear return based on panel data will be taken. The tourism consumption and the influences from cultural differences in sample countries is expected, but more importantly, the general cultural difference effects is

desired by the analysis of the samples. In the meanwhile, the cultural difference is not only reflected in cultural distance, but also in spontaneous tendency of tourism. Consequently, the random influence model of variable intercept is chosen. The method of GLS (Variance Components) and the software of Eviews 3.1 are taken into the evaluation. The sample interval is 2001-2011 and the weighted options are not taken for random effects and section and the corresponding results of model assessment is as follows: (the following equation):

$$\begin{aligned} \hat{T} &= 2.413247 + \overset{(0.56)}{\partial_0^*} + 0.842140X_1 \\ &- 1.379634X_2 + 0.561222X_3 \\ &- 0.857218X_4 \end{aligned}$$

(-2.50) (7.06) (-2.29)

The analysis on gravity model shows: The cultural difference has indeed an great influence on China's inbound tourism and the general effects is negative. For the general system of inbound tourism, the cultural difference influences on general effects is negative obviously. 1 percent increasing of cultural distance index corresponds to 0.86 percent decreasing of tourists, second only to distance variants' effects, contrary to many other theoretical researches. The uncertainty and the gap brought about by cultural differences outweigh its positive influences.

Furthermore, the influences are also reflected in the spontaneous tendency of tourism and the spontaneous tourism consumption varies from country to country. Besides the cultural difference, the absolute geographic distance, the GNP per capita in other countries and China's GDP also play important roles and among them, the geographic distance is more important than income per capita and China's economy (Table 2).

EMPIRICAL ANALYSIS

The questionnaire design and market research implementation are mainly based on the market research materials of foreign tourists in Zhejiang Province carried out by Zhejiang Province from July 23 to August 23 in 2013. The Delphi method and various relevant materials are adopted by the questionnaire, covering demographic features, tourism decisions, the tourism cognition and evaluation, the travel preference behavior and the interaction between object and subject culture. The question is diversified, with the choices as the main part. The open questions are interwoven with the close ones. The attitudes, opinions and feelings of the examinees are shown in scale which indicates the abroad tourism market features of Zhejiang Province to a certain extent.

Analysis on the tourism behavior of foreign visitors in Zhejiang Province: The cross-cultural tourism refers to the sum of all the phenomena and relations caused by the travelers with one culture background to other different cultures. Consequently, the tourism is to experience the life modes with different cultures in essence. The cultural difference is most attractive and the main reason that foreign tourists in Zhejiang Province behave differently. The tourists with different cultures vary a lot in tourism decision, tourism resources preference and interaction between object and subject cultures (Uriely and Reichel, 2000; Pizam and Sussmann, 1995; Kim *et al.*, 2002).

It is obviously inconsistent in communication purposes and behaviors between inbound tourists and local residents. From the perspective of source country, Japan and Korea, as Asian countries, are quite bathed in oriental culture and share many common grounds in tourism behavior which is quite different from western tourists. The Southeast Asian tourists are closely related in culture and language and they can communicate with the local residents better. In the meanwhile, western tourists are extrovert in nature and eager to have more communications with local residents. However, the Japanese and Korean tourists have little communications for their personal character, language and culture,

The inbound tourists in Zhejiang Province have strong eagerness to communicate, but in the reality, limited by communicating conditions and tourism plan, they cannot realize full cultural interaction. Consequently, to satisfy tourists' deep psychological motivation to have cross-cultural experiences, it is an important question in the tourism development of Zhejiang Province.

DISCUSSION

The cultural difference has indeed an great influence on China's inbound tourism and the general effects is

negative. For the general system of inbound tourism, the cultural difference influences on general effects is negative obviously. Therefore it shows the fact that the uncertainty and estrangement led by cultural difference has surpassed the positive attraction that cultural diversity can bring. The corresponding empirical research manifests that it is the cultural difference, the most attractive resources, that attracts foreign tourists to come to Zhejiang Province. In addition, it also contributes to the root cause of differences in inbound tourism behavior.

The contrastive results of the empirical researches work out two features of inbound tourism. On the one hand, inbound tourism industry with evident cultural characteristics, different from material industry, under the significant influence of cultural difference, should be put into effective use. On the other hand, inbound tourism industry is like other material industries, affected by economic development level, income level, cost structure and etc. In conclusion, a comprehensive consideration of the relationship between cultural elements and economic elements is needed (Stephen, 1983; Tinbergen, 1962).

Despite the shortcomings in the research, some questions are actually discovered. First, it attaches great importance to the distance in regional tourism, therefore, gives explanations to the question why the biggest tourist source market is the surrounding areas which proves the simple law that the market positioning should not go against the principle of seeking far and neglecting what lies close at hand. Second, for developing countries, the economy development helps to attract tourists a lot. Although it does not show the features of tourism in itself, it do help the tourism development and attract more tourists. The role that it is playing is more indirect than direct.

CONCLUSION

Inbound tourism industry is an important part of Chinese tourism industry. The research results above show undoubtedly light to the development of Chinese tourism industry. To motivate the orientation of Chinese culture of foreigners, Chinese people need resort to all kinds of ways to help foreigners away from sense of cultural strangeness, culture conflict and cultural indifference. There are many ways Chinese people can turn to, such as, various events, cultural exchanges, artistic performances, movies and television plays and media publicity. From the composition of the quantitative indicators of cultural difference, the cultural distance is mainly showed in core value, attitude to social inequality and uncertainty and the inclination to success or entrepreneurship. Thus, the proper measures can lead to good results, such as, establishing all kinds of cultural etiquette, treating others as equals, developing

hospitality, serving with quality service and keeping social stability which can help shorten the cultural distance to reduce the risk of uncertainties of inbound tourism expectations by foreigners.

The research is good for the cultural difference to attract tourists. The cultural barriers and sensitivities can be avoided in a certain way. Many things can be provided for tourists to show our excellent cultural customs and value orientation to enrich the activities. The mutual understanding and friendship can be improved by strengthening the guest-host interaction to adjust the tourism plan. The suggestions and measures to develop the international tourism market in Zhejiang Province can be put forward in the angle of cultural differences to reduce or eliminate the cultural sensitivities and barriers. To strengthen the positive cultural communication helps to improve the attraction of our international tourism products and to enhance the tourism cultural communication capacity can advance the smooth development of international tourism communication and development.

ACKNOWLEDGEMENTS

I would like to express my gratitude to all those who helped me during the writing of this thesis. This project was supported partially by the research Foundation of Zhejiang Provincial Association of Social Sciences(2013N036).

REFERENCES

- Anderson, J.E. and E. van Wincoop, 2003. Gravity with gravitas: A solution to the border puzzle. *Am. Econ. Rev.*, 93: 170-192.
- Bergstrand, J.H., 1985. The gravity equation in international trade: Some microeconomic foundations and empirical evidence. *Rev. Econ. Stat.*, 67: 474-481.
- Bergstrand, J.H., 1989. The generalized gravity equation, monopolistic competition and the factor-proportions theory in international trade. *Rev. Econ. Stat.*, 71: 143-153.
- Crimp, J., 1983. The impact of economic integration on destination: A gravity approach. *J. Geograph. Econ.*, 1: 56-64.
- Helpman, E. and P.R. Krugman, 1985. *Market Structure and Foreign Trade: Increasing Returns, Imperfect Competition and the International Economy*. MIT Press, Cambridge MA., ISBN-13: 9780262580878, pp: 131-145.
- Hofstede, G. and M.H. Bond, 1988. The confucius connection: From cultural roots to economic growth. *Organizational Dyn.*, 16: 5-22.
- Kim, S.S., B. Prideaux and S.H. Kim, 2002. A cross-cultural study on casino guests as perceived by casino employees. *Tourism Manage.*, 23: 511-520.
- Kogut, B. and H. Singh, 1988. The effect of national culture on the choice of entry mode. *J. Int. Bus. Stud.*, 19: 411-432.
- Leamer, A., 2002. Determinants of bilateral trade: Does gravity work in a neo-classical world. *J. Comparat. Econ.*, 110: 281-312.
- Linnemann, H., 1966. *An Econometric Study in International Trade Flows*. Elsevier BV., Amsterdam, pp: 324-331.
- Pizam, A. and S. Sussmann, 1995. Does nationality affect tourist behavior. *Ann. Tourism Res.*, 22: 901-917.
- Poyhonen, P., 1963. A tentative model of the volume of trade between countries. *Econ. Fin. Arch.*, 90: 35-35.
- Stephen, S., 1983. *Recreation geography*. Longman, London, UK., pp: 132-142.
- Tinbergen, J., 1962. *Shaping the World Economy: Suggestions for an International Economic Policy*. The Twentieth Century Foundation, New York, pp: 330.
- Uriely, N. and A. Reichel, 2000. Working tourists and their attitudes to hosts. *Ann. Tourism Res.*, 27: 267-283.