Study on the coordination between Cognitive image of the City and an Event ----a case study of Shenzhen Hi-Tech Fair

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Abstract

Events are regarded as an effective means to improve city's image and develop its tourism. However, Could an event effectively publicize its city as people expect. In order to answer this question, the authors choose Shenzhen city and China Hi-Tech Fair as the objects to discuss how cognitive image of an event influences the cognitive image of the host city and its impact on participants' behavioral intentions. The results reveal the cognitive image of an event is composed of two dimensions named feature elements and service elements. Participants' cognitive event image will have significant influence on their cognitive city image, while feature elements of cognitive event image will affect event participants' intentions to return to the host destination, and to recommend it. The results are expected to be used by destination managers to improve the image of events through a better selective communication of the positive aspects of the event to particular target groups so as to promote the image of a given tourist destination.

Keywords: event, city, cognitive image, behavioral intention

China witnesses an increasing governor's passion on city marketing by events after Beijing Olympic and Shanghai Expo. In 2011, there held more than 6800 exhibitions which occupies 5000 square meters with exhibiting area of 81.2 millions square meters. It is No.2 after Germany in the world. What's more, there are 90 exhibition companies attained the authorization from UFI, which is No. 1 all over the world. As the direct output of Chinese MICE industry has reached RMB 350 billion, it has grown into one of most potential sectors in cultural innovation industry. Besides immediate economic drive, the more profound impact from Event is to help the publicity and construction of city image.

Events prove to be more competitive than landmark in urban competition. The first reason is its price is lower than infrastructure construction. Secondly, it is more flexible than fixed infrastructure. Thirdly it is more capable of attracting media's attention. Fourthly, series of events can attract tourists to visit the city several times and different types of events bring various segment market.[i]At present, the research on the interaction between event and city image focuses on experimental description with few empirical support.

Hence, this paper chooses Shen Zhen Hi-Tech fair as the case of empirical study to discuss the following issues：（1）In terms of participants, how cognitive image of event influences city cognitive image.（2）Whether event and city cognitive image from participants can influence their behavior intention of revisiting the city and recommending the city to friends. Therefore, the research results are expected to offer reference for city marketing staff and event organizer to carry out effective city and event promotion.

1 Introduction to Shenzhen Hi-Tech Fair

As a beautiful coastal city in south of China, Shenzhen locates next to Hong Kong. Since it is set up as the first economic special district for China's Reform and opening-up, it is also regarded as the window of this policy. So far it has grown into an influential international metropolitan renowned as "Shenzhen speed" to be one of most important Hi-Tech R&D and manufacture base in China.

As the biggest and the most influential technology fair in China, Shenzhen Hi-Tech Fair is a professional conference for display and trade of high technical products approved by the state council. What's more, this fair is under the auspices of various government sectors, academic units and Shenzhen government, and undertaken by the Center of Shenzhen Hi-Tech Fair Center. It is hold on 16-21 November every year in Shenzhen. So far it has held 15 fairs successfully since 1999.

In early 2008, Shenzhen government put forward the general requirement for brand project of city image: "To learn from the advanced city, to promote city image, to increase city impact, to improve cultural soft power, to master the characteristics of Shenzhen, to cultivate and integrate urban cultural resource of Shenzhen by organizing the Event such as Universiade 2011 Shenzhen. "[ii].Among them, it is an important component to take full advantage of Hi-Tech fair to promote urban technology image brand of Shenzhen.

2 Literature review

2.1 Destination Image

Though there is no unified definition on tourism destination image, scholars have admitted that it contains

more than one dimension which includes two layers. The first, there are various components for tourism destination image. The second there are many sources about tourism destination image.

The academics agree to the idea that tourism destination image is a multi-dimensional and integrated one while it is still under the discussion about what dimensions make the overall tourism destination image. They are cognitive image which refers to tourists' knowledge and belief on attributes and characteristics of tourism destination. Affective image is tourism personal feeling to the destination. And conative image is closely related with behavior. Gartner (1993) thought the image consisted of three different but grade-relevant [iii]。 Baloglu and Brinberg（1997）、Chen（2001）、Hong，Kim,Jang 和 Lee（2006）addressed tourism destination image was composed of the correlation between cognitive or perceptual element and affective or evaluative element [iv]What's more, tourism destination image is not permanently unchanged to visitors, before and after trip, category and depth of tourism experience might affect destination image. [v]。 Vogt 和 Andereck（2003）'s conclude cognitive image will change by visitor's present experience while affective image otherwise.[vi]。 Moreover, many researches from Baloglu, 1999;Baloglu & McCleary, 1999; Stern & Krakover, 1993 prove that cognitive image plays dominant role in destination integrated image and affect affective image greatly.[vii]

There are various sources for destination image component including not only the publicity materials such as real visiting experience, word-of-mouth and media etc,. But also local means of cultural and entertainment, architecture construction, service quality and event activities etc. [viii]So the organization of event and the relevant characteristics of event activities might play profound impact on city's image. We can seen a lot researches on evnts's role on tourism destination image, especially the big events such as Olympics and World Exposition. Hall (1989)discussed how event strengthened a city's image. Getz (1991)studied how event influenced a choice decision of tourism destination; Ahmed (1991)addressed how event changed a place's negative image; While Getz(1997)focused on how event helped repositioning of tourism destination. Kaplanidou (2007)worked on the relationship between event and tourism destination's affective image, and its influence on Olympic visitor's behavior intention [ix]。

2.2 *Event image*

Brand image refers to overall association and impression of the brand from the customer who will take personal choice and process brand information during the process of promotion. Everyone admits that beautiful, unique and strong brand image is the essence of a successful brand. In terms of event image, scholars usually borrow the theory of brand image as event is also one attraction for destination which is similar with tourism destination image. Kaplanidou (2007)thinks event image consists of two dimensions. That is cognitive and affective image, and cognitive image will affect affective one. What's more, Gwinner (1997)tired to analyze influential factors of event image, he proposed three major influential factors: event type (sports, festival and art activity), event characteristics (scale, professional reputation, historical development, promotion etc.)individual factors (significance of event, intensity of significance, and personal's activity history)[x]。 Hence, we can conclude that Gwinner's first two factors are related with dimensions while the third one connects with affective dimension.

3 Methodology

3.1 *Objects*

During the 15th Hi-Tech fair, on November 16th-21st,2013, the authors interviewed 525 participants by convenient sampling. Among them, male interviewees are 68.3%, females are 36.2%, and 40.2% of them are at the age of 15-25, 45.3% are between 26-35. More than half of them are middle-class cadres or staff in enterprises and institutions. 61.2% of them are from other place rather than Shenzhen. About half of them (49.3%)are the first time to attend the fair. As for background, 72.7% is participating company, 21.6% is visitors, 0.4% is media and 5.4% is others.

3.2 *Measurement tool*

The main purpose of this study is to investigate how event cognitive image of participants affect their cognitive image to the host city, and how cognitive image of event and host city works on their behavior intention. Therefore, there are three parts in measurement, that is, cognitive image of Shenzhen, cognitive image and behavior intention of Hi-Tech fair. Interviewees' demographic information includes sex, age, occupation and hometown.

There are 16 items in initial measurement scale in Shenzhen cognitive image, and 15 of them involve frequently used description from relevant materials such as publicity brochure, reports from media, academic essay, and one concerns people's overall impression on Shenzhen.

There are 14 items in initial measurement scale in Hi-Tech fair cognitive image, 13 of them involve the information from homepage of Hi-Tech fair website, and 1 is people's general impression of Shenzhen Hi-Tech fair.

Behavior intention is consisted of 4 questions, which studies the interviewee's attitude to recommend Hi-Tech fair and Shenzhen to the friends or people who revisit Shenzhen, who re-participate Hi-Tech fair. In terms of the question about re-visiting and re-participating are adapted from Kaplanidou (2007), the one that recommends to friends is from Kim, Han and Lee (2001)

All the questions involving attitude are measured by Li Kete's seven scaling method, from 1 representing totally disagree to 7, totally agree.

3.3 Investigation process

During six days of Hi-Tech fair, in order to guarantee the validity of questionnaire, the authors sent out the questionnaire on the first, second, fourth and sixth day on the spot. All the people were voluntarily interviewed, and information was promise to be kept confidential for academic purpose.596 questionnaires are successfully recollected back, among them there are 525 valid questionnaire, so the validity has reached to 88.1%.

3.4 Data analysis

The authors have factor analysis on scale before the group differentiation analysis and variable prediction. Factor analysis consists of two parts, EFA and CFA, they are used to test scale's attribute and reliability, eventually, it can test relationship among variables by structural equation model.

4 Data analysis

4.1 Factor analysis and reliability test

First, we divided the samples in two parts and have EFA(Exploitive factor analysis) on half of them N=262
（Wu Minglong，2010）。EFA can help people know the component dimension of cognitive image of Shenzhen and Hi-Tech fair.深 KMO of 15 observation items of Shenzhen cognitive image is 0.911 （＞0.5），significance of Bartlett's sphericity test is ＜0.05；KMO of 13 observation items of cognitive image of Hi-Tech fair is 0.917（＞0.5），significance of Bartlett's sphericity test is＜0.05。It indicates that these two scales are appropriate to have factor analysis.This study selects Principal components analysis as the base of factor analysis.When having factor analysis, there are Kaiser factor with characteristics value more than 1.Then the authors adopt Variman as shaft which makes factor variables more accessible and then output rotating factor loading matrix.

Shenzhen cognitive image selects three factors, that is, city attractive element, city characteristics element and city cultural element. They explained the figure of 64.331%, differentiation of Shenzhen cognitive image. The lowest level of factor loading is 0.514, while the highest is 0.816. Hi-Tech fair cognitive factor take two factors, they are, service element and characteristics element, which explain differentiation of Hi-Tech fair's cognitive image. The lowest factor loading is 0.659, the highest is 0.840. According to the research from Hair et al, factor loading more than 0.300 is regarded as minimal critical value, while the one more than 0.400 is thought to be relatively important, the one on 0.500 or more is viewed as be more practical significant.

Working on Cronbach′α from three factors of Shenzhen cognitive image and 2 factors of Hi-Tech fair cognitive image, the result ranges from 0.805 to 0.930. City attractive element α is 0.861， city characteristic element α is 0.864，α of city cultural element is 0.805，α of Hi-Tech fair's service element is 0.930，α of Hi-Tech fair's characteristics element is 0.897.The result of factor analysis and reliability test can be seen as the follow chart:

Then we will use the other half of sample (N=263), the total is 235, by deleting the case with missing value to carry out CFA about cognitive image of Shenzhen and Hi-Tech fair so as to further test psychological attribute of scale. Therefore, it gets CFA testing result of Shenzhen cognitive image measurement model. Chi-square measure is significant （$p < 0.001$）Chi-square degree of freedom （χ^2/df =191.8/78=2.46）,SRMR(0.047),RMSEA(0.079)， Which indicates the model can be accepted.，CFI is （0.946），NFI is（0.913）以及 TLI is（0.927）. It is able to attain CFA testing result of Hi-Tech cognitive image measurement model, Chi-square measure is proved to be significant，（$p＜0.001$）Chi-square degree of freedom is（χ^2/df =137.43/57=2.41）SRMR is(0.045),RMSEA is(0.078)， which indicates the model can be accepted.GFI is 0.916），CFI is 0.967，NFI is 0.945 and TLI is 0.955.

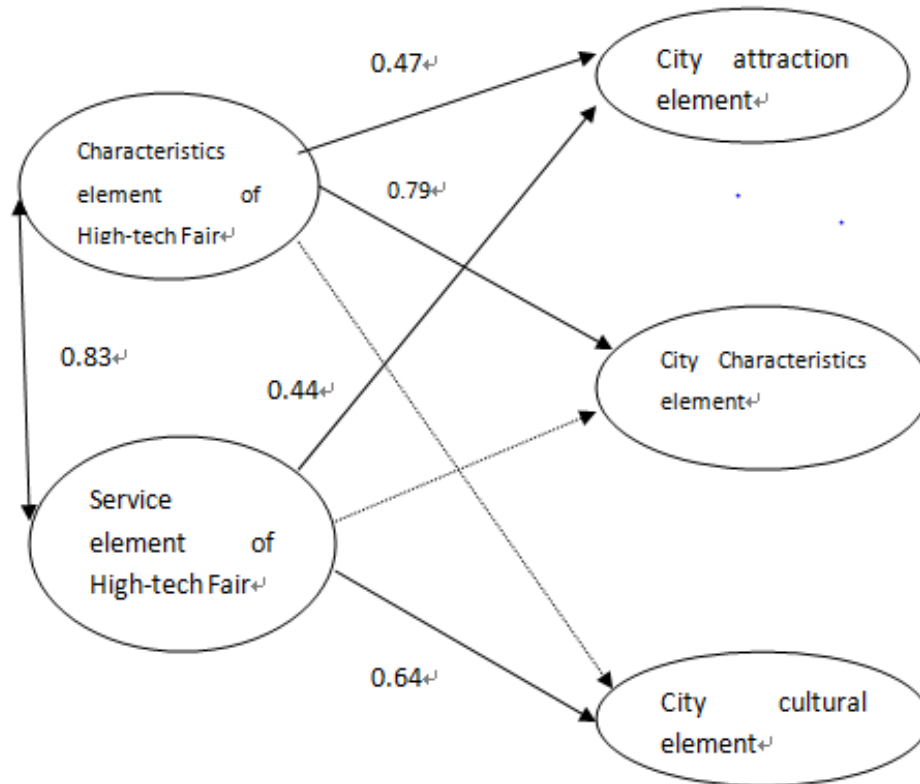### 4.2 Analysis result for structural equation model

The authors build two structural equation models, they are, the influnece of Hi-Tech Fair's cognitive image to Shenzhen's cognitive image, the relationship between Hi-Tech fair's cognitive image and behavior intention of particitpants in Hi-Tech fair. We get 495 cases by using all the investigated samples with deleting the one with missing value to test the model.

Chart 1 Analysis result of exploitive factor of Hi-Tech fair and Shenzhen cognitive image

	Shenzhen cognitive image factor1	Shenzhen cognitive factor 2	Shenzhen Cognitive factor 3	Hi-Tech fair cognitive factor 1	Hi-Tech Fair cognitive factor 2
	City attraction element	City Characteristics element	City cultural element	Hi-Tech Fair Service element	Hi-Tech Fair characteristics element
Test Item*					
High-quality product	0.780				
Favorable social order	0.761				
Unique design of product	0.728				
Happy city	0.675				
Bountiful tourism resource	0.589				
Cultural city	0.514				
Innovation city		0.816			
Hi-Tech city		0.795			
Advanced production industry		0.682			
Energetic city		0.646			
Civilized city		0.619			
Fashionable city		0.593			
Developed cultural industry			0.806		
Advanced comic and animation industry			0.754		
Unique cultural resource			0.727		
Publicity of Hi-Tech Fair				0.818	
exhibition income				0.792	
Quality of professional audience				0.790	
State-of-art technology				0.741	
Promotion of Hi-Tech Fair				0.732	
Image as No.1 Hi-Tech exhibition				0.713	
Exhibition Service				0.700	
Internalization				0.660	
new idea					0.840
new product					0.824
innovation technology					0.739
exhibition effect					0.717
reach exhibition target					0.659
feature value	7.320	1.315	1.015	7.933	1.049
variation explained%	48.797	8.770	6.764	61.025	8.067
reliability（Cronbach′α）	0.861	0.864	0.805	0.930	0.897

∗All the test items adopt Li Kete's seven scaling method 1=strongly disagree, 7=completed agree. Total number of Sample N=262

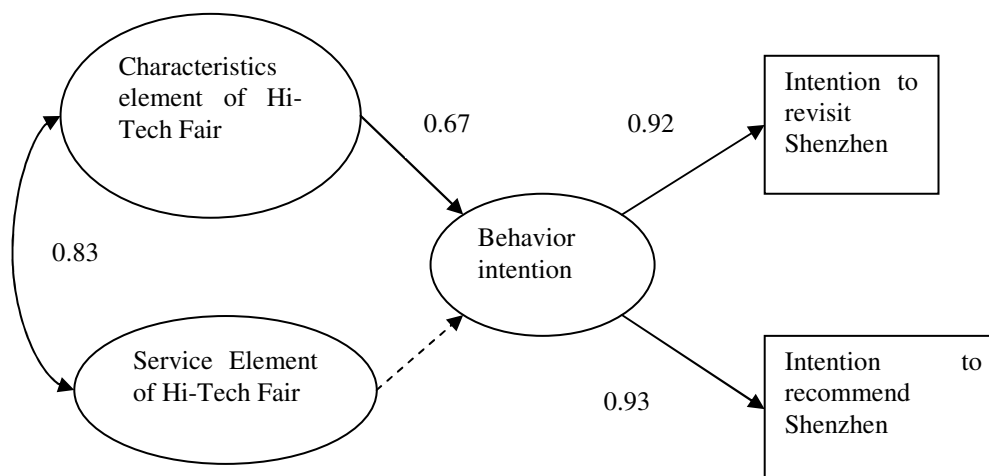4.2.1 the influnece of Hi-Tech Fair's cognitive image to Shenzhen's cognitive image

Chi-square degrees of freedom=1.736
RMSEA=0.056; CFI=0.955
GFI=0.868; NFI=0.901; TLI=0.943

Figure 1 Structural Equation Modeling of the influence from cognitive image of Hi-Tech Fair on Shenzhen cognitive image

The results indicate that cognitive image of Hi-Tech fair holds significant influence on cognitive image of Shenzhen with favorable fitting degree. There is a stronger relativity between two factors of cognitive image of Hi-Tech fair, the correlation coefficient is 0.83. Among them, the characteristic factor of Hi-Tech fair has significant influence on city attraction element and characteristic element. （$p<0.001$） What's more, its influence to city characteristic element, $\gamma=0.79$,is greater than that to city attraction element,$\gamma=0.47$. However, Hi-Tech fair's characteristics element has barely no influence on city cultural elements, （$p>0.05$） (the dotted line in the figure)；service element of Hi-Tech fair shows significant influence on city attraction element and city cultural element. （$p<0.001$） What's more, its impact on city cultural element, （$\gamma=0.64$） is greater that it does to city attraction element（$\gamma=0.44$），While, it has little impact on city characteristics element. （$\gamma=0.44$） (Dotted part in Figure 1)

4.2.2 Relationship between cognitive image of Hi-Tech fair and participants' behavior intention

Figure 2 displays structural equation model between Hi-Tech fair's cognitive image and participants' behavior intention.The results prove that

Chi-square degrees of freedom=2.986
RMSEA=0.063;CFI=0.975
GFI=0.944; NFI=0.964; TLI=0.965

**Figure 2 Relation model of Hi-Tech fair cognitive image and
participant's behavior intention**

Cognitive image of Hi-Tech fair plays great influence on participants' behavior intention with good fitting with structural equation. Among them, characteristics element of Hi-Tech fair has significant influence on participants' behavior intention. （γ=0.67，p＜0.001）while service element of Hi-Tech fair has no visible corelation with paticipant's behavior intention. （p＞0.05）（the dotted part in figure 2）

5 Conclusion

At present, all the cities want to enhance city popularity by promoting brand campaign to attract tourists. Hence, the purpose of this research is to discuss how events' participants understand event's image and organizer city image by analyzing effect of event's cognitive image to the city's image to study the influence from event's cognitive image to city's cognitive image. Moreover, it will discuss whether cognitive image of event will have impact on participants' intention of revisiting and recommendation.

Similar with the previous literature, （Kaplanidou，Jordan, Funk. et al.,2012[xi]；Moon，Kim，Ko，et al.,2011）our study proves that cognitive image of destination and event activity are multi-dimensional structure. In summary, there are three factors for destination cognitive image, they are, city attraction element, city characteristics elements and city cultural element. While event activity cognitive image consists of two factors such as event characteristic element and event service element. Their constructional dimensions have passed validity and reliability. City attraction element includes the item which attracts visitors to come and offer them sense of security. City characteristics element has the marked label which distinguish the organizer place and other region. City cultural element consists of the item relevant with city cultural industry and resource. Event characteristics element mainly includes the item relevant with event's attribute, intonation, and effect. Event service element mainly involves the item which is relevant with service and benefit of participants offered by event.

The study on correlation between cognitive image of event activity and destination indicates that holding brand events is able to play important impact on destination's cognitive image. The cognition on event activity characteristics will affect the cognition of destination's characteristics and attraction. What's more, event service cognition is closely related with how people see destination's attraction and cultural industry development. Therefore, people's cognition to event characteristics will not affect their idea to its cultural industrial development whilst people's cognition will not work on their understanding about destination's characteristics either.

What's more, the study on correlation between event activity cognitive image and participants' behavior

intention indicates cognitive image of event will play significant and positive impact on participants' revisiting intention and word-of-mouth publicity intention. Among them, event characteristics element plays more important role while event service element has little impact on it. That is to say, if participants believe the event is able to effectively reach the target with highlighting the event's brand characteristics, they will feel happy to visit again and recommend it to their friends.

6 Recommendation

This research is expected to offer reference for city governor in perspective of practice. Firstly, the organization of event activity is able to enhance destination's image, it proves to be an effective means to publicize and promote city by organizing an brand event. Secondly, since the purpose of holding event is to attract more visitors, the event is supposed to bear its own characteristics to build unique competitiveness to form brand power so as to realize event's economic benefit and word-or-mouth effect.

To sum up, this paper studies on how the cognitive image of event plays the impact on the host city's image and participants' behavior. The further research could focus on the establishment of an integrated model of event brand image influencing   hosting destination's image with taking cognitive image, emotional image and integrated image into account so as to form a more comprehensive understanding on city marketing improvement.

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