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The Research is about the Follow-up Effect on City and Society which was Exerted by World Expo based on the Investigation of Inhabitants' Perception in Shanghai

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Abstract: This report regarded Shanghai habitants as research targets on the foundation of a survey about the follow-up effect on city and society which was exerted by 2010 world Expo. 1213 Shanghai habitants had been interviewed during the measurement. After having analyzed the factors, we found that the World Expo had a strong follow-up effect on the society. It mainly enhanced the notability of Shanghai all over the world, promoted the communication in the field of science, technology and culture. Moreover, it established the image of Shanghai as 'city of MICE' and enriched cultural knowledge about different places. We can find out abundant resources of the World Expo, at the same time, we can make the world know more about China. You can experience different customs and culture from different countries/places and the resources overseas. In addition, it had an educational effect on local habitants and it helped to protect and promote Chinese culture. It also contributed to enhance the relationships among the habitants, visitors and tourists. You could also enjoy a novel experience. Last but not least, people would have opportunities to witness both the positive factors from lots of performance in the Expo and negative factors from the increasing crime rate, the conflicts between the inside and outside and the negative impact which the traditional culture have suffered from. The cluster analysis fully demonstrated that the positive follow-up effect of the World Expo on city and society was recognized by the habitants who had been interviewed while the negative ones were realized as well. Thus, relative administration sections of the Shanghai government should make effective public policies without delay, lead the enduring development of the positive follow-up effect of the World Expo on city and society was recognized by the Narde Expo, and minimize the negative effect at large

Keywords: Shanghai World Expo, the follow-up effect, city & society, Perception.

1 Introduction

Recently, the scholars from both home and abroad did more researches on such events as the Olympic Games and the World Cup than on the World Expo. There are few relative topics about the social effects which local inhabitants made on the Expo. For example, Maurice Roche(1995)thought that if the events could be held successfully, positive image of the host city would be renewed by media report, tourism and outside investment. The change of crime rate, which has been researched by M. Barker and his team(2002), showed that local crime rate increased indistinctly. Choong-Ki Lee(2005) and his team has investigated the effects of big events on the image of tour destination. The 41th World Expo, the first Expo which was marked into the history by the most extensive level of participation, was held by China. 190 countries, 56 international organizations and

73.08 million visitors were all hooked and fascinated by that. Thus, the success of the 2010 World Expo is meaningful to the development of Shanghai. It must exert profound effects on economy, social culture, city environment and other aspects of Shanghai. Although it has made many positive effects, it also brought about some negative ones. Shanghai inhabitants, as the direct undertakers of its follow-up effect, their support would guarantee the enduring proliferation of the positive follow-up effect of the World Expo. Therefore, it is of great significance and reality value to investigate inhabitants' perception about the follow-up effect of the World Expo2010.

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2 Research Design

2.1 Questionnaire

The first part of questionnaire is the demography and the variability of the social attribute from the respondents which including sex, age, education background, profession, monthly pay and length of stay. The second part is the respondents' perception to the follow-up effect of the World Expo2010 , its questions consist of enhancing the notability of Shanghai all over the world, promoting the communication in the field of science, technology and culture, establishing the image of Shanghai as 'city of MICE', enriching cultural knowledge about different places, finding out abundant resources of the World Expo, making the world know more about China, experiencing different customs and culture from sorts of countries and the resources overseas, educational effects on local inhabitants and its help to the protection and promotion of Chinese culture, improving the relations among the inhabitants, visitors and tourists, enjoying novel experience, having opportunities to appreciate performance, increasing crime rate, the conflicts between the inside and outside, the negative impact which the traditional culture have suffered from. The cluster analysis fully demonstrated that the positive follow-up effect of the World Expo on city and society was recognized by the habitants who had been interviewed while the negative ones were realized as well. People should judge different levels by five projects in the Likert inventory, and 1-5 respectively stand for 'completely disagree', 'disagree', 'not sure', 'agree' and 'can't agree more'.

2.2 Data resource

We used stochastic sampling to start the investigation. 1500 questionnaires were delivered to Shanghai inhabitants on November 1st, 2011, one year of the World Expo, which resulted in 87.5 % (1312) sample return and 92.5% (1213) is effective. As a whole, the characteristics of inhabitants who were interviewed (as it shown in table 1) are basically consistent with the demographic characteristics of Shanghai inhabitants. It is of a high randomness and our investigation data is a typical representative.

3 Analysis and Discussion

3.1 Test of questionnaire's reliability

We used the software SPSS18.0 to test the reliability of data collected in the investigation the Cronbach α of the questionnaire is 0.947, it shows that the questionnaire has a good and steady homogeneity reliability; The related

coefficient of its structure is between 0.171 and 0.835, and every item reaches to significant level, it demonstrates that the questionnaire has excellent validity; Its KMO test value is 0.954, the significance probability of Bartlett roundness inspection is 0, it illustrates that the correlation matrixes are not identity matrixes, so all of them could be used to do factor analysis and cluster analysis, they all conform to the design requirement.

3.2 Descriptive Statistics

Firstly, we have sorted out 1213 valid questionnaires and then got the primary statistics result of the respondents perception to the follow-up effect of the World Expo2010,as it shown in Table 2:

Then we use the software SPSS18.0 to get inhabitants' apperceive variables about the follow-up effect of the World Expo including descriptive statistical results of minimum,maximum,medium value,standard deviation and variance,as it shown in Table 3:

Table 3 has shown the statistics result of the respondents' perception to the follow-up effect of the Shanghai World Expo. From the form We can see that single average mark of perception is more than entire mark of perception 3.7540, the evaluating indicator of this statistics including 11 items: Enhancing the notability of Shanghai all over the world , Promoting the communication in the field of science, technology and culture, Establishing the image of Shanghai as 'city of MICE'. Enriching cultural knowledge about different countries/places, Finding out abundant resources of the World Expo, Making the world know more about China, Experiencing different customs and culture from different countries/places, Experiencing different resources overseas, Helping to protect and promote Chinese culture, Enjoying a novel experience, Having opportunities to appreciate the positive factors from lots of performance in the Expo. Because the respondents think that these 11 items of perception are most significant and they are the vital items of the follow-up effect of the Shanghai World Exp. Their influences are great and deep. So the Expo sponsors and policy makers will focus on them intensively.

3.3 Factor Analysis

We used the software SPSS18.0 to investigate and collect the data. Principal component analysis can help us to make sure the number of common factor and its factor loading, then according to the standard of maximizing the variance ,we do the factor orthogonal rotation,after the rotation ,there came the results in Table 4.

According to Form4 we can see that measuring scale has extracted common factors from the initial form. The common factor F1 has a high normal load in the fields of



Respondent		Person-time	Percentage	
0	Man	646	53.26%	
Sex	Woman	567	46.74%	
	17 Years Or Less	35	2.89%	-
	18-24 Years	585	48.23%	
Age	25-44 Years	306	25.23%	
1150	45-64 Years	246	20.28%	
	More Than 65 Years	41	3.38%	
	Junior Or Below	79	6.51%	
	High school, Diploma	164	13.52%	
Education Background	Junior College, Bachelor	881	72.63%	
	Master Or Above	89	7.34%	
	Enterprise Institution Staff	482	39.74%	
	Professionals And Technical	177	14.59%	
Profession	Student	400	32.98%	
Troression	Retired	51	4.2%	-
	Else	103	8.49%	
	2000 Yuan Or Less	165	13.6%	-
	2000-3500 Yuan	417	34.38%	
Monthly Pay	3500-5000 Yuan	321	26.46%	
Monuny Fay	5000-6500 Yuan	155	12.78%	
	More Than 6500 Yuan	155	12.78%	
Length Of Stay	3 Years Or Less	167	13.77%	
	4-10 Years	166	13.69%	
	11-20 Years	152	12.53%	
	More Than 20 Years	728	60.02%	

 Table 1: Structure characteristics of inhabitants who were interviewedsample size n=1213

enhancing the notability of Shanghai all over the world, promoting the communication in the field of science, technology and culture, establishing the image of Shanghai as 'city of MICE', enriching cultural knowledge about different countries/places, finding out abundant resources of the World Expo, making the world know more about China ,experiencing different customs and culture from different countries/places ,experiencing different resources overseas, educational effect on local inhabitants ,helping to protect and promote Chinese culture ,enhancing the relationships among the inhabitants, visitors and tourists, enjoying a novel experience having opportunities to appreciate the positive factors from lots of performance in the Expo. These norms have all increased development of the city and society in Shanghai as positive factors. The common factor F2 has a high normal load in the fields of increasing crime rate, the conflicts between the inside and outside, the negative impact which the traditional culture suffered from. These norms have affected the level of city and society in Shanghai as negative factors.

3.4 Cluster Analysis

We used Microsoft SPSS18.0 to do 5 kinds of cluster analyses. We also Investigated and collected the data to

do variance test. We found that all the norm of variance significance were 0. They demonstrated different sort of remarkable difference and they were all confirmed to the statistics significance requirement. The results of cluster analysis have been shown in Table 5.

Clustering I (2.4%, Sample n=29): Objectors. This kind of inhabitants is objected to both positive factors and negative ones of follow-up effect which the World Expo 2010 made. After observing the typical value ,we could also find that they gave the lowest mark to all the perception of the follow-up social effect of the World Expo2010, they denied the follow-up effect of the World Expo to the city and society in Shanghai, but the number of people is the least.

Clustering (31.7%, Sample n=384) Paradoxical Supporters. This kind of inhabitants keep paradoxical attitude to both positive factors and negative ones of follow-up effect which the World Expo 2010 made, all of value is balanced which is between 3.0 and 3.5.

Clustering IV (14.0%,Sample n=170)Rational Supporters. This kind of inhabitants show agreement to



Norm \ Perception	Completely Disagree	Disagree	Not Suze	Agree	Can't Agree More
Enhancing the notability of Shanghai all over the world A ₁	23(1.9%)	14(1.15%)	230(18.96%)	530(43.69%)	416(34.3%)
Promoting the communication in the field of science, technology and culture A ₂	22(1.81%)	22(1.81%)	263(21.68%)	557(45.92%)	349(28.77%)
Establishing the image of Shanghai as 'city of MICE'A ₃	28(2.31%)	30(2.47%)	303(24.98%)	530(43.69%)	322(26.55%)
Enriching cultural knowledge about different countries/places A ₄	25(2.06%)	18(1.48%)	258(21.27%)	567(46.74%)	345(28.44%)
Finding out abundant resources of the World Expo A ₂	25(2.06%)	21(1.73%)	285(23.5%)	556(45.84%)	326(26.88%)
Making the world know more about China A ₄	26(2.14%)	30(2.47%)	250(20.61%)	551(45.42%)	356(29.35%)
Experiencing different customs and culture from different countries/places A ₇	26(2.14%)	32(2.64%)	260(21.43%)	564(46.5%)	331(27.29%)
Experiencing different resources overseas A _S	23(1.9%)	38(3.13%)	308(25.39%)	546(45.01%)	298(24.57%)
Educational effect on local inhabitants A ₉	37(3.05%)	66(5.44%)	370(30.5%)	478(39.41%)	262(21.6%)
Helping to protect and promote Chinese culture A ₁₀	32(2.64%)	57(4.7%)	329(27.12%)	536(44.19%)	259(21.35%)
Enhancing the relationships among the inhabitants, visitors and tourists A ₁₁	29(2.39%)	60(4.95%)	366(30.17%)	490(40.4%)	268(22.09%)
Enjoying a novel experience A ₁₂	23(1.9%)	24(1.98%)	333(27.45%)	546(45.01%)	287(23.66%)
Having opportunities to appreciate the positive factors from lots of performance in the Expo A _D	21(1.73%)	33(2.72%)	308(25.39%)	545(44.93%)	306(25.23%)
Increasing crime rate A ₁₄	79(6.51%)	267(22.01%)	428(35.28%)	260(21.43%)	179(14.76%)
The conflicts between the inside and outside A15	78(6.43%)	279(23%)	414(34.13%)	258(21.27%)	184(15.17%)
The negative impact which the traditional culture suffered from A1.	82(6.76%)	271(22.34%)	468(38.58%)	220(18.14%)	172(14.18%)

Table 2: The primary statistics result of the respondents' perception to the follow-up effect of the World Expo2010(sample size
n=1213)

positive factors of follow-up effect which the World Expo 2010 made and they are basically agree to the negative ones. From the form5 we could see that the description which they completely agree (medium value¿3.8) were all positive factors. Thus, they were rational and realistic supporters.

Clustering(12.4%, Sample n=151)Enthusiastic supporters. The perception of this kind of inhabitants were the most sensitive to both positive factors and negative ones of follow-up effect which the World Expo 2010 made. They gave the highest mark to all the perception of the follow-up social effect of the World Expo2010.They admitted that when they were benefit from the Expo, they also paid more attention to the cost.

4 Conclusions

The report was based on the data which had been collected from 1213 Shanghai inhabitants who joined the

2010, and then we did several analysis on it. The results showed that the follow-up effect of the World Expo 2010 was mainly enslaved to two factorspositive factorsenhancing the notability of Shanghai all over the world, promoting the communication in the field of science, technology and culture, establishing the image of Shanghai as 'city of MICE', enriching cultural knowledge about different countries/places, finding out abundant resources of the World Expo, making the world know more about China, experiencing different customs and culture from different countries/places, experiencing different resources overseas, educational effect on local inhabitants, helping to protect and promote Chinese culture, and negative factors (enhancing the relationships among the inhabitants, visitors and tourists, enjoying a novel experience, having opportunities to appreciate the positive factors from lots of performance in the ExpoThe

investigation of perception to the follow-up effect on city and society in Shanghai, one year after the World Expo



	Minimum	Maximum	Medium Value		Standard Deviation	Variance
Apperceive Variables	Statistic	Statistic	Statistic	Standard Error	Statistic	Statistic
Enhancing the notability of Shanghai all over the world A	1.00	5.00	4.0734	.02478	.86291	.745
Promoting the communication in the field of science, technology and culture A ₂	1.00	S.00	3 <i>9</i> 802	.02471	.880.54	.741
Establishing the image of Shanghai as 'city of MICE'A	1.00	5.00	3.8969	.02587	.90110	.812
Enriching cultural knowledge about different countries/places Å ₄	1.00	S.00	3 <i>9</i> 802	.02474	.861.50	.742
Finding out abundant resources of the World Expo A	1.00	5.00	39373	.02495	.86899	.755
Making the world know more about China A.	1.00	5.00	39736	.02554	.88960	.791
Experiencing different customs and culture from different countries/places A-	1.00	S.00	39415	.02540	.88430	.783
Experiencing different resources overseas A.	1.00	5.00	38722	.02536	.88310	.780
Educational effect on local inhabitants A	1.00	5.00	3.7106	.02769	.96448	.930
Helping to protect and promote Chinese culture A	1.00	5.00	3.7692	.02659	.92605	.858
Enhancing the relationships among the inhabitants, visitors and tourists A	1.00	5.00	3.7486	.02683	.93445	.873
Enjoying a novel experience A	1.00	S.00	3,8656	.02476	.86225	.743
Having opportunities to appreciate the positive factors from lots of performance in the Expo A ₁₁	1.00	S.00	3 89 20	.02503	.87165	.760
Increasing crime rate A ₁₄	1.00	5.00	3.1591	.03224	1.12293	1.261
The conflicts between the inside and outside A ₁₁	1.00	5.00	3.1575	.03252	1.13267	1.283
The negative impact which the traditional culture suffered from A to	1.00	S.00	3.1063	.03187	1.10999	1 232

Table 3: Inhabitants' apperceive variables about the follow-up effect of the World Expo2010 (sample size n = 1213)

Table 4: Getting the result after the rotation (sample size n = 1213)

Apperceive Variables		Common Factor	
	\mathbf{F}_1	F ₂	
Enhancing the notability of Shanghai all over the world A1	.830		
Promoting the communication in the field of science, technology and culture A_2	.866		
Establishing the image of Shanghai as 'city of MICE'A ₃	.852		
Enriching cultural knowledge about different countries/placesA4	.887		
Finding out abundant resources of the World Expo A5	.886		
Making the world know more about China A ₆	.883		
Experiencing different customs and culture from different countries/places A7	.865		
Experiencing different resources overseas A ₈	.855		
Educational effect on local inhabitants Ag	.800		
Helping to protect and promote Chinese culture A ₁₀	.819		
Enhancing the relationships among the inhabitants, visitors and tourists A ₁₁	.795		
Enjoying a novel experience A ₁₂	.814		
Having opportunities to appreciate the positive factors from lots of performance in the Expo A ₁₃	.776		
Increasing crime rate A14	[.914	
The conflicts between the inside and outside A ₁₅		.928	
The negative impact which the traditional culture suffered from A ₁₆		.905	

Variable of perception	Cluster I	Cluster II	Cluster III	Cluster IV	Cluster V
Enhancing the notability of Shanghai all over the world A ₁	1.3793	3.5313	4.0856	4.9059	4.9934
Promoting the communication in the field of science, technology and culture A ₂	1.4138	3.3568	4.0167	4.8353	4.9801
Establishing the image of Shanghai as 'city of MICE'A3	1.2759	3.2240	3.9541	4.7471	4.9735
Enriching cultural knowledge about different countries/placesA4	1.2414	3.3281	4.0459	4.8824	4.9404
Finding out abundant resources of the World Expo A5	1.2069	3.2969	3.9708	4.8412	4.9669
Making the world know more about China A ₆	1.1379	3.3229	4.0313	4.8882	4.9603
Experiencing different customs and culture from different countries/places A7	1.2759	3.2969	3.9770	4.8294	4.9801
Experiencing different resources overseas A ₈	1.3103	3.2318	3.9019	4.6941	4.9735
Educational effect on local inhabitants Ag	1.2069	2.9896	3.8163	4.3471	4.9735
Helping to protect and promote Chinese culture A ₁₀	1.1034	3.0781	3.8852	4.3882	4.9735
Enhancing the relationships among the inhabitants, visitors and tourists A ₁₁	1.2759	3.0417	3.8914	4.2824	4.9669
Enjoying a novel experience A ₁₂	1.3793	3.2552	3.9478	4.4471	4.9801
Having opportunities to appreciate the positive factors from lots of performance in the Expo A ₁₃	1.6207	3.2995	3.9687	4.4412	4.9735
Increasing crime rate A ₁₄	1.9655	3.1068	3.0376	2.2588	4.9205
The conflicts between the inside and outside A ₁₅	2.0000	3.1667	2.9937	2.2294	4.9205
The negative impact which the traditional culture suffered from A ₁₆	1.8276	3.0339	2.9645	2.2588	4.9404

Table 5: Result of measuring scale cluster analysis (sample size n = 1213)

inhabitants who were interviewed have affirmed both the positive and negative follow-up effects of the World Expo 2010. As a result, government of Shanghai should make effective public policies without delay. In addition, they should launch publicity propaganda on purpose, carry out some effective measures concerning improvement, increase interaction and understanding between the inhabitants and administration in order to lead the enduring proliferation of the positive follow-up effects which the World Expo made, and minimize the negative effects at large.

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