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Research on Destination Image Perception Based on Digital Footprint of Tourism

Taking Xi'an as an Example*

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Abstract—The research on the image perception of tourism destinations is a hot topic in the study of tourism at home and abroad. However, it still needs to be supplemented and perfected in research methods and research on destination emotional images. This article takes Xi'an as the research object, selects the digital footprint of network travel notes as the data source, uses Rost ContentMing software to extract the high-frequency feature words of Xi'an tourism image and forms the semantic network, adopts content analysis method and grounded theory to analyze the cognitive image and emotional image of Xi'an tourism. As a result, the overall image of tourists on Xi'an is a cultural and humanistic tourism destination. Xi'an's tourism image carrier is a thousand-yearold ancient capital. It has a strong cultural atmosphere, a longstanding humanistic feeling, and exquisite historical artifacts, etc. The tourists' overall emotional perception on Xi'an is positive. The positive perception mainly comes from tourism landscape, natural environment, special cuisine, and convenient transportation. The negative perception mainly comes from scenic spot management services.

Keywords—Xi'an; digital footprint; content analysis; image perception

I. INTRODUCTION

The tourism destination image is an important part of tourism research. Huang et al. uses the content analysis

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method to study the web log, and believes that the active image perception of tourism destinations had a positive impact on the post-purchase behavior of tourists [1]. Pizam believes that the perceived image of tourism is closely related to the motivation of tourists, decision-making in tourism, service quality and satisfaction [2]. Dann believes that one of the important influencing factors for tourists and potential tourists to choose a tourist destination is the perception of the tourism image. Understanding the image of the destination perceived by tourists is conducive to studying the factors affecting the motivation or decision-making of tourism [3]. Bai Kai and others used the scenic spot image of Tang cultural theme in Quijang of Xi'an as an empirical research object, which proved the positive correlation between the revisiting intention and the word-of-mouth effect in tourists' follow-up behavior intention [4]. Zhang Hongmei takes the tourism image of Zhouzhuang in Jiangsu Province as an example. It verifies that the emotional image and the overall image have a significant positive influence on the behavior intention of tourists [5]. The above studies have shown that the image of tourism destinations plays an important role in decision-making, tour behavior, and marketing and development of destinations.

Looking at existing research results, research on the perception of destination image tends to use traditional questionnaires and other methods. With the popularization and development of the Internet, the high penetration of digital information on the Internet has led to close links between tourists and online platforms. Among them, tourists will provide information on tourist destinations, experiences and perceptions in the tourism process, and the evaluations on tourism attractions and services. They are shared on the travel platform in the form of travel notes. It is of great significance for potential tourists to obtain destination information, and form a perception impression. Ultimately,



the tourists would make decisions. The emergence of social network research methods makes it possible to use tourist digital footprints to study pre-tourism information search and tourism behaviors [6] [7] [8], and the comparison of the establishment of destination images, propaganda [9] [10] [11], and tourism emotion. In view of this, this article takes Xi'an as an example, selects tourism travel digital footprint from popular tourist information service platform as a research sample, and uses content analysis method and grounded theory to analyze the cognitive image, emotional image and overall image of tourism destination. It attempts to systematically extract the positive and negative perception factors of Xi'an tourism destination image, and provides reference for the optimization of Xi'an tourism image.

II. MATERIALS AND RESEARCH METHODS

A. The Introduction of Case Destination

Xi'an is located in Shaanxi, China and currently governs 11 districts and 2 counties with a total area of 10108 km2 and a built-up area of 348.27 km2. It belongs to the warm temperate semi-humid continental monsoon climate. From March to May and from September to November, it is the best time for Xi'an tourism. It is a world-renowned ancient capital and the first batch of excellent tourist cities in China. The city has a beautiful natural ecological environment and a long cultural history, and boasts vast cultural relics and historic sites (see "Table I").

TABLE I. XI'AN TOURISM DIRECTORY

Scenic division standard	scenic spot
5A Scenic Spot	Greater Wild Goose Pagoda, Tang Paradise, Museum of Mausoleum of the First Qin Emperor, Huaqing Hot Spring
4A Scenic Spot	Heihe tourist attraction, Guanzhong folk museum, Shaanxi History Museum, National relics park of Daming palace, Shaanxi natural history museum, Xi'an Museum (small wild goose pagoda), Chanba national wetland park, Xi'an Expo Park, Cuihua Mountain National Geo-park, Jinlongxia scenic spot, Taiping national forest park, Banpo Site-Museum in Xi'an, Lishan national forest park, defensive wall scenic spot, Taoism culture exhibition in Qujiang district, Zhuque National Forest Park, Hancheng lake scenic spot, Scenic spot of Tang culture, Qinling Wildlife Park, Qujiang ocean polar park, Forest of Stone Steles Museum in Xi'an, etc.
3A Scenic Spot	Da Xing-shan Temple, Guangren Temple, White Deer Plain theme park, Baqiao ecological wetland park, Qinglong temple relic scenic spot, ruins of Lantian Man, etc.
World Heritage	Terracotta Warriors and Horses of Qin, Greater Wild Goose Pagoda, Small Wild Goose Pagoda, Ruins of Daming
Scenic Spot	palace in Chang'an of Tang dynasty, Ruins of Weiyang palace in Chang'an of Han dynasty, Xingjiao Temple Pagoda
World Geopark	zhongnan Mountain World Geopark in Qinling

a. (source: official website of xi'an tourism bureau)

B. Data Sources

This article selects the tourist travel digital footprint from the popular tourism information service platform as a sample of the study (see "Table II"), and filters the data according to the corresponding rules. (1) The author selects a large number of visits in 2015-2017. Among them, the 2015-2016 visits were higher than 3000, and the 2016-2017 visits were higher than 1,500. (2) The selection of travel notes focuses on the diversity of information such as the gender, age, place of residence, and travel time of the travel writers. (3) The travel note is complete, and it can sort out the tourist journey in Xi'an in chronological order.

TABLE II. XI'AN TOURISM DIGITAL FOOTPRINT OBTAINED BY MAJOR TOURISM WEBSITES

website	Number of travel digital footprints
mafengwo.com	45
Baidu travel network	20
Qunar	45
Total	110

C. Research Methods

The content analysis method is a kind of research method that systematically and quantitatively describes the contents of texts and so on. ROST CM6 is content mining system software developed by Professor Shen Yang of Wuhan University. It can analyze word segmentation, word frequency statistics, sentiment analysis, social network relations and semantics. This article uses the digital tourism

footprint collected as a sample and uses ROST CM6 software for content analysis.

D. Text Content Processing

Before using the ROST CM6 software for text content analysis, the digital tourism footprint sample was preprocessed. 1) The author deletes the elements in the travel note, such as pictures and emojis that are not related to the perception of tourists. 2) The author could replace synonyms with word documents. It should consolidate "Yang Guifei" and "Yang Yuhuan" into "Yang Guifei", "Xi'an Museum", consolidate "Museum in Xi'an city" and "The Museum in Xi'an" into "Xi'an Museum". 3) The travel content is divided according to different attractions, food, hotels, etc.. It would facilitate the subsequent analysis. 4) The author could record some detailed information in the travel notes such as travel routes, travel time, and personal backgrounds of tourists in the excel form, and establish a database of tourist basic information for Xi'an tourism digital footprint. 5) The author could convert the pre-processed tourism digital footprint into text document .txt format. 6) The author could create a word segmentation dictionary, refer to the text content, and establish a custom dictionary that mainly includes attractions, locations, and names of people. 7) The author builds a filter vocabulary and integrates vocabulary that is unrelated to the perception of Xi'an tourism image, such as "in short" and "because" into the filter vocabulary.

After the travel digital footprint preprocessing work is completed, we could use the ROST CM6 software to



perform text frequency and sentiment analysis. 1) The author compiles the high frequency vocabulary. First, the author import the .txt file to be analyzed, use the "word segmentation" to segment the word, use the "frequency analysis", get "Xi'an tourism image high-frequency feature words (as shown in "Table III") and establish a word co-occurrence matrix to generate a tourism digital footprint semantic network map. 2) The author uses the Rost Emotion Analysis tool to perform sentiment analysis of text content and obtain tourist's emotional image statistics.

III. IMAGE PERCEPTION ANALYSIS OF XI'AN TOURISM DESTINATION

A. Analysis of High-frequency Feature Words of Tourism Image Attributes

1) Frequency analysis of high-frequency feature words: The word frequency can reflect the importance of a word in the entire document or corpus. Usually, the importance of this word is positively related to its frequency of appearance. The analysis of the part-of-speech of the top 105 highfrequency feature words appeared in the travel notes is mainly nouns, adjectives and verbs. The nouns are mainly the elements of Xi'an tourism image perception, such as scenic spots (Terra Cotta Warriors, Big Wild Goose Pagoda, etc.), traffic (transit bus, bicycles, etc.), cultural history (First Emperor of Qin, Everlasting Regret, etc.), tourist attractions (food, snacks, etc.). The number is large. The adjectives mainly reflect the overall tourism image of Xi'an (such as a long history, cultural heavy) and the evaluation of tourists (good taste, fineness, convenience, etc.). The verbs reflect the activities of the tourism destination (such as performances, etc.) and the motivations of the tourists (such as booking, queuing, etc.).

TABLE III. HIGH-FREQUENCY FEATURE WORD OF XI'AN TOURISM IMAGE

order	feature word	frequen	order	feature word	frequen	order	feature word	freq
		cy			cy			ency
1	Xi'an	2415	36	Railway Station	194	71	North Mountain	80
2	Terra-Cotta Warriors	1143	37	Taste	194	72	Famen temple	72
3	Greater Wild Goose Pagoda	712	38	spouting spring	191	73	Aircraft	70
4	Tickets	652	39	Tang Paradise	190	74	Buddhist relics	70
5	North Guangji Street	632	40	Train	185	75	Position	66
5	Rampart	618	41	Airport	179	76	Bicycle	62
1	Museum	582	42	Hot spring	166	77	Westmount	59
3	Bell tower	498	43	Music	165	78	Gate	57
)	Huaqing Hot Spring	464	44	Tang Dynasty	160	79	Repair	56
.0	History	446	45	Mausoleum of the First Qin Emperor	159	80	Relaxation	54
.1	Huashan Mountain	442	46	Mutton	157	81	Emperor	53
2	First Emperor of Qin	384	47	Booking	153	82	Archaeology	52
3	Architecture	377	48	Scenic spot	146	83	Arts	51
4	Square	352	49	Delicious food	143	84	Explanation	47
5	Ruins	339	50	Ropeway	142	85	College Door	40
6	Culture	338	51	South Entrance	142	86	Tang Dynasty	40
7	Hotel	330	52	Chang'an	135	87	Emperor Xuanzong of Tang	37
8	Drum Tower	309	53	Everlasting Regret	131	88	Xiangzi temple	37
9	Scenic spot	307	54	Bus	128	89	Protection	35
0	Cultural relics	303	55	Free of charge	126	90	Sunrise	34
1	Daming Palace	289	56	Fine	125	91	Buddhism	34
2	Paomo	281	57	Snack	124	92	Qujiang River	33
3	Tour guide	281	58	performance	124	93	Qian mausoleum	33
4	Food	277	59	line up	121	94	Style	32
5	Li Mountains	271	60	Yang Guifei	116	95	Inexpensive	32
6	Small Wild Goose Pagoda	244	61	Traffic	112	96	Service	31
.7	China	239	62	Subway	110	97	Gao's courtyard	31
8	Ancient city	234	63	Bus	108	98	Millennium	27
9	Shanxi History Museum	232	64	Figurine pit	103	99	Xi'an Museum	26
0	Rougamo	230	65	Fame	102	100	Chiang Kai-shek	26
1	Ancient times	220	66	Convenience	97	101	Xi'an Incident	26
2	Performance	207	67	Bus	95	102	Ancient capital	25
3	Park	200	68	Pottery figurine	93	103	Fineness	25
4	A large collection of ancient	196	69	Story	91	104	Regret	25
35	stone tablets	195	70	Da Ci'en Temple	87	105	Weather	25
-	Characteristic		, ,] "	100		

From the ten most frequently used feature words, Xi'an is the target of tourism destinations and tourism image perceptions and is most frequently mentioned by tourists. The second is the "Terracotta Warriors". "The Terracotta Warriors" would be a "golden business card" for splendid ancient civilization. It is a scenic spot that the tourists must go to have a visit in Xi'an. The Big Wild Goose Pagoda, also

known as the "Ci'en Temple Pagoda", is a symbolic building of Xi'an that condenses people's wisdom. It ranks third in terms of word frequency, becoming a representative understanding of Xi'an. The fourth in the frequency ranking is "tickets", indicating that tourists are very concerned about one of the six elements of tourism. "North Guangji Street" is a famous food and cultural district in Xi'an. It is a snack



street that focuses on Xi'an specialties and has a fascinating charm. It ranks fifth and reflects that most tourists choose to taste Xi'an specialties here. Ranking sixth in the list is the "City Wall", and most of the tourists highly praised the tour of the ancient capital of Xi'an. "Museum", representatives museum in Xi'an, such as Shaanxi Museum of History, and Xi'an Museum, etc., focus on the collection of precious cultural relics unearthed in Shaanxi Province, attracting tourists to study. "Bell Tower" is located in the center of Xi'an, and it is the largest and most complete preserved shape of China's existing Bell Tower. Many tourists highly value the night view of the bell tower. "Huaging Pool" is an iconic tourist attraction in Xi'an. Its staged hate song performances, hot spring resources, and historical culture attract tourists and have a high reputation. "The history" of the tenth is the perception of the overall image of Xi'an.

2) Semantic network structure analysis of tourism image attributes: Semantic network is a kind of network diagram that expresses knowledge through concept and semantic relationship. It is formed by the connection of points, where the points are used to represent things, concepts, attributes, actions, states, etc. Lines are used to represent semantic relations between the connected points [12]. Co-occurrence word frequency is the frequency of co-occurrence of high frequency words before and after text formation. According to the frequency of co-occurrence words, the semantic network of text can be constructed.

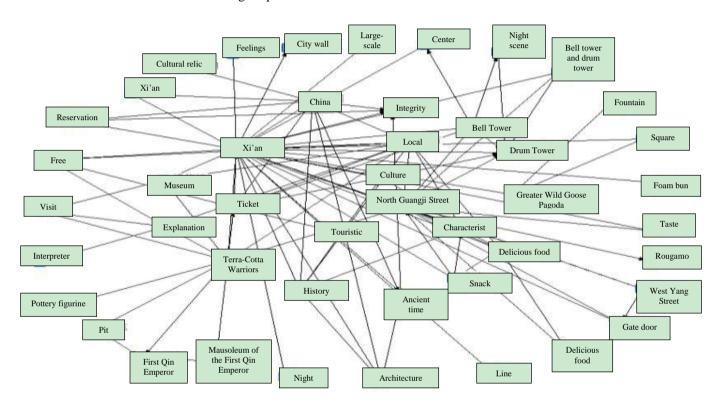


Fig. 1. Xi'an tourism image semantic network.

In Xi'an tourism image semantic network (Fig. 1), the semantic network structure can be roughly divided into three circles, with an obvious core—sub-core—periphery structure. The first part is the core circle. The words of "Xi'an", "local", "characteristics", "culture" and "history" are closely related circle of word semantics. These words embody the most central characteristics of Xi'an destination image perception. The second part is the sub-core circle, which consists of "North Guangji Street", "Bell Tower", "Drum Tower", "Greater Wild Goose Pagoda", "Terra-Cotta Warriors" and "Museum", reflecting the tourists' further understanding of the core circle and tourists' stronger perception of tourist attractions. The third part is the peripheral circle, which is mainly embodied in the tourism environment, tourism resources, tourism reception and management facilities. The

tourists know well about the core circle and sub-core circle, such as "delicious food", "snacks" and "night scene". They are the expansion of words in the core circle.

B. Analysis on Cognitive Image Content Category

1) To conclude the categories of cognitive image content: According to the statistics in "Table III", the total word frequency of the first 105 high-frequency vocabularies is 18987. The high-frequency words of Xi'an cognitive image are classified by content analysis method. And they are divided in to five first-level categories and nine second-level categories. Then, it has obtained category of Xi'an tourism cognition image content analysis (as shown in "Table IV").



Primary category (frequency/total word frequency)	Secondary category (frequency/total word frequency)	Examples of high-frequency vocabulary		
Whole cognition (8.7%)	nequency)	Xi'an, Chang'an, ancient capital, culture, history, cultural relics, millennium		
	tourism resource (10.7%)	Architecture, celebrities (First Emperor of Qin, Yang Guifei, Wu Zetian, Chiang Kai-shek, etc.)		
tourist attraction (65.7%)	tourist attractions (44.8%)	Terra-Cotta Warriors, Greater Wild Goose Pagoda, North Guangji Street, Chinese city wall, Bell tower, Huaqing Hot Spring, Drum Tower, Daming Palace, Lishan Mountain, Small Wild Goose Pagoda, Shannxi History Museum, Forest of Steles, Tang Paradise, Qianling Tomb, Xi'an Museum		
	Tourist activity (10.2%)	Performance, mountaineering, cycling, hot spring		
Tourist environment	Location environment (7.3%)	China, the world		
(11.6%)	Cultural environment (2.99%)	Free, distinctive, famous, convenient, beautiful, pity		
	Natural environment (1.31%)	Landscape, weather, sunrise		
Service management	Scenic spot management	Tickets		
Accommodation facilities Tourism service		Guide, explanation		
(13.5%) Other (0.5%)	Infrastructure	Bus, cable, subway, train, bus		

TABLE IV. CATEGORY OF XI'AN TOURISM COGNITION IMAGE CONTENT ANALYSIS (N=18987)

2) Analysis on cognitive image content category: According to the analysis in "Table 4", the cognition of Xi'an tourism image is mainly reflected in the cognition of tourist attractions (spots) (44.8%), cognition of tourism services and tourist reception facilities (13.5%), and cognition of environment and atmosphere (11.6). %).

a) Cognition of major scenic spots in Xi'an: Tourists' perception of tourist attractions (scenic spot) is very prominent. From the high-frequency feature vocabulary, the frequency of words such as "Terra-Cotta Warriors", "Greater Wild Goose Pagoda", "North Guangji Street", "City Wall", "Museum" and "Bell Tower" is highest. Among them, the "Terra Cotta Warriors" and "Big Wild Goose Pagoda" are officially recognized 5A-level scenic spots. The "City Wall" and most of the museums in Xi'an are officially recognized 4A-level scenic spots, which are in line with the official propaganda image. Although the "Bell Tower" and "North Guangji Street" were not included in the list of star-level scenic spots, the citizens and tourists have already affirmed them in their hearts. Also, they are landmark tourist spots in Xi'an. They reflect the historical capital of Xi'an and the image of the food capital. . Among these attractions, tourists are engaged in a variety of activities such as taking hot springs, feeling historical culture, and watching performances. It should be noted that Huashan is located in Huayin City, Weinan City, Shaanxi Province. Famen Temple is located in Fufeng County, Baoji City. The two scenic spots do not actually belong to Xi'an. However, they appear in high-frequency feature word list on Xi'an tourism image perception. It indicates that they are closely related to tourism in Xi'an. And they are tourist attractions that many tourists will choose to visit in Xi'an.

b) Cognition of Xi'an tourism service and tourist reception facilities: For scenic spot management, "tickets" are the concerns of many tourists. For the perception of the

ticket economy in Xi'an, tourists' attitudes are mixed. Most tourists think that it is worthwhile to visit the Shaanxi History Museum for free. However, on the contrary, there are too many tourists in the scenic spot and too weak participation in the scenic area. The tourists would experience a bad tour, which makes tourists have negative cognitive attitude on the ticket price. At the same time, tourists are also concerned about the design of scenic tickets, and most visitors believe that the design of Xi'an scenic tickets is in line with the image of Xi'an's historic city.

For tourism services, "guide", "explanation" and other words appear frequently in Xi'an tourism image high-frequency feature words. The word "guide" has ranked 23rd in frequency, even surpassing many famous scenic spots in Xi'an. In fact, this is consistent with the ancient capital of Xi'an, which is a historical and cultural city. There are many historical sites and museum attractions in Xi'an. If tourists do not understand their cultural backgrounds, they can only pass through the perception and lose the most essential meaning of the tour. Therefore, this type of attraction (such as the Terra-Cotta Warriors, Shaanxi History Museum, Etc.) requires the explanation of professionals. And it is also the reason why the words such as "guide" and "interpretation" are concerned by tourists.

For basic facilities, "Hotel", "Bus", "Subway", "Ropeway", "Plaza", etc. also belong to Xi'an tourism image high-frequency vocabulary. These words directly reflect the tourists who eat, live, have entertainment, purchases and other activities, and travel in Xi'an.

c) Cognition of Xi'an's environment and atmosphere: Visitors' perception of the environment is mainly concentrated in the location environment, the human environment and the natural environment. At the same time, there is a difference in the perception of the tourism environment. We could get the conclusion: location



environment (7.3%)> human environment (2.99%)> natural environment (1.13 %). Tourists' perception of Xi'an natural environment is lower than that of historical culture. In the perception of human environment, tourists often express deep regret for the destruction of historical sites, and have a clear perception of the modernization and commercialization of scenic spots.

C. Analysis on Emotional Image of Tourism Destination

The figure could show tourists' emotional analysis on Xi'an's overall tourism image "Fig. 2". From the figure, it can be intuitively analyzed that tourists' emotional evaluation of Xi'an tourism image is dominated by positive emotions (75.9%), and Xi'an brings higher satisfaction to tourists.

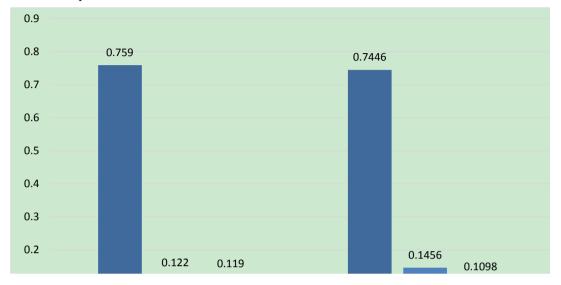


Fig. 2. Sentiment analysis of Xi'an tourism image.

From the point of view of gender, male tourists and female tourists have little difference in the sentimental analysis of the Xi'an tourism image. It also shows that the

historical and cultural atmosphere of Xi'an is the same regardless of whether it is for male tourists or female tourists.

TABLE V. PROGRESSIVE ENCODING PROCESS OF EMOTIONAL IMAGES OF XI'AN DESTINATION

First-level coding		Secondary coding	Third-level coding		
Positive perception	Negative perception				
Worthy, famous, spectacular, dazzling,	pity, nothing to see, hard to be famous,	Tourist landscape	tourist attraction		
boutique, shocking, stunning, large-scale,	not worth it	Positive perception (22.2%)	Positive perception (29.2%)		
magnificent building, clean, proud, fun		Negative perception (7%)	Negative perception (7%)		
Good performance, Chinese style, worth,		Tourist activity			
wonderful		Positive perception (7%)			
Lively, historic, culturally sophisticated,	People are bustling and rubbing	Scenic atmosphere			
antique, quiet	shoulders	Positive perception (9.3%)	Tourist environment		
		Negative perception (1.9%)	Positive perception (20.5%)		
Beauty, good scenery, leisure, no noise, good	Smoggy, no scenery	Natural environment	Negative perception (7.6%)		
air		Positive perception (9.3%)	S. I.		
		Negative perception (3.8%)			
enthusiastic	Thief	cultural environment			
		Positive perception (1.9%)			
		Negative perception (1.9%)			
satisfaction	the headset sound is small, peddler,	Scenic spot management			
	expensive tickets	Positive perception (1.9%)			
		Negative perception (5.6%)			
Free Hosting	line up	Tourism service	Service Management		
		Positive perception (1.9%)	Reception Facilities		
		Negative perception (1.9%)	Positive perception (20.6%)		
Saliva, famous, Delicious, Characteristic,	The taste of the meals near the scenic	Accommodation facilities	Negative perception (25.5%)		
Color, Flavor, Affordable, Elegant	spot is not authentic and the price is	Positive perception (13%)	- 1.5 (15.170)		
Environment	expensive	Negative perception (3.8%)			
Cheap and convenient	Black car, cheating	Transportation Facilities			
		Positive perception (3.8%)			
		Negative perception (3.8%)			



As can be seen from "Table V", the emotional image perception of Xi'an tourism destinations is mainly concentrated in three aspects: tourist attraction, tourism environment, service management and reception facilities. And the proportion is from high to low: tourism attraction > service management and reception facilities>tourism environment. Among them, the positive emotional sentiment evaluation mainly praises and appreciates Xi'an cultural relics and historical sites, and enjoys the ancient environment of Xi'an and the highly appreciated special cuisine. The negative sentiment is mainly due to the poor public transport environment. The hazy weather leads to poor air quality. There are "soliciting" and "cheating" behaviors. Tourists in the high season often result in tourism reception facilities and services that cannot meet tourist expectations.

D. Overall Image Analysis

Tourists' perceptions and sentimental evaluation of Xi'an's tourism image enabled tourists to form a perception of the overall image of Xi'an tourism. Tourists rated Xi'an's overall tourism image as relatively high, and most tourists affirmed it. Among them, tourists have a high degree of cognition of the historical perception of Xi'an. And the ancient capital has 1000 years' history, a strong cultural atmosphere, a long time humanistic feelings and exquisite historical relics. These have become Xi'an's tourism image carrier. Secondly, Xi'an's "food capital", and the image of "city of landscapes and nature" have a higher level of perception. It is also consistent with the official image propaganda created by Xi'an.

IV. CONCLUSION

The 10 most frequently used feature words for tourists' digital footprint are Xi'an, Terra-Cotta Warriors, Greater Wild Goose Pagoda, tickets, North Guangji Street, City Wall, Museum, Bell Tower, Huaqing Pool, and history. Xi'an's tourism destination image can be summarized as the ancient capital and humanities.

The semantic network presents a "core—sub-core—edge" circle structure. The core circle mainly embodies the tourists' understanding of Xi'an's overall image. The subcore circle shows tourists' attention to Xi'an's tourist attractions. The marginal circle is mainly supplemented by the core circle and the sub-core circle, mainly reflecting the tourism environment and tourism resources, tourism reception and management facilities.

Tourists' cognition of perceived image and emotional image of Xi'an include three dimensions: tourism attraction, tourism environment, service management and reception facilities.

Tourists are more sensible to tourism attractions. However, they have lower cognition of service management, reception facilities and tourism environment. It shows that Xi'an has rich historical and cultural tourism resources, and it has a strong attraction. However, it still needs to make certain efforts in the promotion of service management and reception facilities and the creation of a tourist environment,

prolonging the tourism industry chain and improving the perception and impact range of tourists.

Tourists' perception of emotions on Xi'an is mainly positive. For male tourists and tourists, the historical and cultural infectivity of Xi'an is the same. Tourist's positive perception of tourism, natural environment, special cuisine, convenient transportation and other aspects constitute the main component of the positive perception of Xi'an tourism emotional image. And the negative perception mainly comes from the scenic spot management services and other aspects.

Tourists affirmed Xi'an's overall tourism image. However, there is still much space for improvement, such as the degree of tourist's participation. It is necessary to plan participation in experiential travel events to achieve the upgrade of cultural experience tourism and the transition from traditional tourism to fashion tourism. The design and development of tourism products should have scenic features, improve their competitive advantages, and attract tourists.

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