

Local youth's perception of tourism city's brand image

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Abstract: Tourism city brand image construction is a strategic measure to enhance the city's core competitiveness, and has received great attention from various tourism cities. As a new force in promoting urban development, local youth must accurately grasp their perception of the city's brand image, to realize the simultaneous development of youth development and urban development, and the integrated development of youth, industry, and city. This paper focuses on the city brand building of tourist cities among local youth, adopts the brand association measurement tool "brand concept map", takes Chongqing, a tourist city in China, as the field, and the local youth as the research object, and establishes the analysis perspective of the correlation strength of results based on traditional methods. Based on exploring the characteristics of brand image perception, this paper further explores the formation mechanism behind the characteristics from the perspective of the diversity of local youth's perception channels of city brand image.

Keywords: city brand; brand concept map; brand image; Chongqing; local youth

1. Introduction

City brand is beneficial to improving the influence of the city and establishing the audience's cognition and attitude towards the city, which has gradually become the strategic focus to promote the economic development of the city and enhance the soft power. City brand shows the characteristics of each city (Wang et al., 2012). The development of tourism cities greatly depends on the construction of city brands, so the research of tourism city brand image is more important. In April 2022, the "Opinions on carrying out pilot projects for the construction of youth-oriented cities" pointed out that "making cities more youth-friendly and making youth more promising in cities". As the special audience of the city, local youth and the city are mutual contributors and beneficiaries. Only by stimulating the two-way promotion between the youth and the city can the inherent advantages and lasting potential of the city be fully exploited. Therefore, it is particularly important to fully understand the perception of local youth on the city brand image, which is of great significance for the global shaping and dissemination of the city brand image. However, in the study of urban brand image, local youth are a group that is easily ignored, and there are few studies on this group in the field of urban branding.

Firstly, local youth are indispensable contributors to city brand construction. Tourism is built upon the consumption gaze of regional heterogeneity (Wei et al., 2015). Due to their familiarity with the city, local youth are trusted by tourists. Their perception and attitudes toward the city's brand image will significantly affect tourists' perception of the city's brand image, consequently impacting the construction and dissemination of the city brand in tourist cities. Secondly, local youth have more

diverse channels of perceiving the city brand image, which can be categorized into embodied practices within the city and media exposure on the internet. Compared with urban residents of other generations, local youth use the media more frequently and rely more heavily on it, and the boundary between the pseudo-environment and the real environment is more blurred. In the intertwining of embodied practices and media exposure, local youth form unique perceptions of the city's brand image. Furthermore, the city brand has a more direct influence on local youth living in the city. On one hand, the city brand portrayed in the media enriches local youth's understanding of the city, acting as a supplement to brand image perception based on daily practices. On the other hand, unlike "pilgrims" heading to trendy destinations, local youth have multi-dimensional city life experiences. When the flattened city brand image conflicts with their embodied experiences, it's difficult for them to identify with the city brand, leading to an attitude of "difficult to agree but forced to acknowledge" (Qin, 2021). Local youth might even "reverse" the use of tangible material features of city brands favored by tourists, such as using social media food lists and "check-in" spots as "avoidance" lists.

To optimize the strategy of tourism city brand building, this study takes local youth as the starting point for the first time, uses the method of brand concept map to analyze the characteristics of local youth's perception of city brand image, and expounds the effectiveness of tourism city Chongqing's brand building in this group. At the same time, this paper analyzes the correlation strength of the results in a pioneering way, further explores the formation mechanism of the features, and puts forward suggestions for the construction and dissemination of the tourism city brand image from the two perspectives of "outside" and "inside", to provide a useful reference for international similar studies.

2. Review of relevant theories

2.1. City brand

"City" is a geographical location in geography, an imaginative space in culture, and, as posited by branding expert Keller, it can be branded like products and services. Brand, as a crucial concept in marketing, condenses intangible assets of the brand subject and can be identified through specific images and personalized "symbols" or "information." The purpose of city branding is to establish a certain level of awareness in people's minds about an area, and then form an image and associations based on that foundation.

The concept of city brand initially emerged from American brand expert Keller, who proposed in the book "Strategic Brand Management" that a location or specific spatial area could become a brand (Kevin, 2009). Many scholars have contributed to the progressive wave of city brand research. (Campelo et al., 2014; Campelo, 2015; de San Eugenio Vela, 2013; Govers and Go, 2009; Hudak, 2015; Kavaratzis and Hatch, 2013; Warnaby and Medway, 2013) Due to differences in scholars' theoretical backgrounds and research focuses, there are diverse interpretations of city brands, leading to a variety of definitions in academia. The definition of "city brand" with high acceptance was put forward by Zhang Yi, who believed that a city brand is analyzed, refined, and integrated by city builders, and is composed of unique factor endowment-

referring to geographical or man-made landscape and other elements, historical and cultural precipitation and industrial advantages and other differentiated brand elements (Zhang et al., 2009). City brand is characterized by individuality, non-universality, and heterogeneity due to the differences in a city's historical role, cultural heritage, humanistic atmosphere, and economic strength. Li Zhaoming further classifies “city brand” into political, historical, economic, transportation, cultural, tourism, and special event types based on a city's unique resources and competitive advantages (Li, 2006). Among these, tourism-oriented city brand serves tourist cities that have quantifiable evaluation criteria—when a city's tourism industry output surpasses 7% of its GDP.

Many city brand scholars focus on the perspective of specific stakeholder groups, such as tourists, business tourists, or residents. (Green et al., 2016). Multiple studies emphasize the significance of residents in urban branding. City residents are a part of the city's brand. For example, some studies have considered more specific questions such as dimensions of citizen satisfaction and commitment (Zenker et al., 2009). Braun et al. explored the different roles of residents in local brands: Residents as integrated parts of a place brand, Residents as ambassadors for their place brand, and Residents as citizens. The above three roles make residents a vital target for the local brand (Braun et al., 2013). In the widely recognized Anholt City Brands Index, created by Anholt, citizen quality is an important dimension alongside presence, place, potential, vitality, and prerequisites (Anholt, 2006). Additionally, Insch and Florek highlight the importance of resident satisfaction in measuring the value of the city brand. They assert that the construction of a city brand should first determine its positioning based on resident approval (Insch et al., 2008). While previous studies consider residents as significant influencing factors in city brands, few scholars regard residents as a unique audience for city branding. However, some scholars have taken notice of this research path. Liu Mingyang, a Chinese scholar, analyzed the differences in the “internal” and “external” perspectives of urban brand communication from the dimensions of audience characteristics, relationship interactions, communication channels, and evaluation systems, proposing a comprehensive communication model that integrates both perspectives (Liu, 2012). Generally speaking, the communication strategies of city brands to urban residents are not abundant in the field of urban brand communication research, and the interaction between city brands and residents has also received less attention. Therefore, conducting related research on the brand image from the perspective of residents not only holds practical guidance but also but also has certain academic significance and can enrich the results of the research field.

Many studies have also focused on case analysis of the image construction of various city brands. Most cases focus on the analysis of city brand building and communication paths for “others”, such as tourists, consumers, and foreign countries. He Chunhui studied the “out of the circle” of Harbin, China, and found that Harbin became China's most popular tourist destination at the end of 2023 and the beginning of 2024. Its ice and snow landscape, hospitable citizens, and high-quality experiences are its unique tourism features. By creating a three-dimensional communication system and forming a mutually beneficial and win-win situation with multiple cities, Harbin's unique brand image has been deepened (He and Wang, 2024). Fei Wenli

conducted a quantitative and qualitative analysis of the reporting content and evaluation attitude of Shanghai-style fashion culture in authoritative Western fashion media, summarized and outlined the media image of Shanghai, China, under the mirror image of Western fashion media, and thus discussed the city image of Shanghai. The construction and international communication strategy specifies the need to build a “Shanghai-style fashion culture” external communication identification system and tell the world about a true, open and progressive Shanghai with the unique expression of fashion art (Fei and Tong, 2021). Some scholars have also analyzed the impact of city “residents” on city brands. Merrilees B focused on a quantitative survey of 878 residents of Gold Coast City, Australia. Research results show that social relationships, Sunshine Surfing brand personality, and creative business are the main antecedents that affect brand success. Finally, the paper provides a framework for public policy intervention to improve the urban environment (Merrilees et al., 2009). All in all, the success of city branding requires thinking from the perspective of value co-creation by multiple entities, including tourists, residents, local governments and many other entities. Recent cases show that citizens play an important role in promoting the construction of tourist cities. They have strong initiative and can spontaneously participate in the construction and promotion of cultural tourism projects, and constantly enhance their sense of identity with the city in this process, forming a positive cycle. Therefore, the analysis of “local youth” in this study has a certain value and is conducive to enriching the analytical perspective of city brand image perception.

2.2. Brand image

Brand image is an important concept within brand theory. The brand is a significant intangible asset for businesses, and the key factor driving this asset is a brand image (Fan et al., 2002). Brand image refers to customers’ perceptions of the brand, reflected as associations in customers’ cognitive understanding of the brand (Lu et al., 2009). The forms and content of brand associations are diverse, ranging from reflections of the product’s performance to aspects unrelated to the product itself. Keller divides the brand image into “low-level factors”, which pertain to the perception of the product’s functionality, image attributes, and benefits, and “high-level factors”, which encompass overall judgments, feelings, and relationships towards the brand and product. He categorizes brand image into three types: brand attributes, benefits, and attitudes (Kevin, 2009).

Since the 1960s, when Ogilvy and Herzog introduced the concept of brand image, numerous measurement models for brand image have been proposed by scholars. The Brand personality theory proposes five measurement dimensions of brand personality through anthropomorphic methods (Aaker, 1997); the brand image duality model divides brand image into soft and hard categories; The Keller brand image model believes that brand image is a combination of the four dimensions of brand association—type, strength, preference, and uniqueness (Gao, 2015); Fan Xiucheng proposed to measure brand image through the model of brand recognition (Fan et al., 2002).

City brand inherently involves brand image and the city brand image is the audience’s perception and association of the city brand. Due to the characteristics of

the city product, compared with other types of brands, the measurement dimensions of city brand image are more diverse, mainly focusing on the two dimensions of cognition and attitude towards city brand image. For instance, in the process of measuring Beijing's city brand image, Yang et al. put forward the "importance – rating" matrix of Beijing's city brand, and built a Cognition-Emotion-Intention City Brand Image Model (Yang et al., 2019). Liu et al. introduced the concept of regional branding, also known as Place Brand, encompassing national, city, and regional brands. They provided corresponding measurement dimensions for brand image, including economic, natural, industrial, and corporate image of the region (Liu et al., 2021). Combining with Zhao et al.'s theory of ecological regional branding (Zhao et al., 2016), this study proposes that the composition of a tourist city's brand image can be categorized into economic, natural, resident, industrial, corporate, and product images of the city. Subsequent analysis will be based on these dimensions.

2.3. Brand concept map

There are various research methods for studying brand image, primarily involving quantitative and qualitative research methods with small-scale data. In addition to the questionnaire survey method in quantitative research methods, there are more qualitative research methods such as projection method and in-depth interview method. Qualitative methods focus on textual descriptions of the research content, while quantitative methods often employ scaled questions to create numerical descriptions and summaries of brand perceptions (Kevin, 2009).

To better explore consumers' internal perceptions of a brand and the relationships between perceptions, John introduced the method of Brand Concept Map in 2006, an effective way to represent associative structures in research (Ji et al., 2017). Keller believes that brand image associations should have strength, preference, and uniqueness. Keller believes that the association of brand image should have strength, preference and uniqueness. This method can measure the strength and preference of brand image of survey subjects by exploring their associative items about brand image, the correlation between the items and the strength of the correlation. This method combines qualitative and quantitative methods, and has the advantages of both quantitative and qualitative methods: it is flexible and systematic.

According to existing research, the process of creating a Brand Concept Map can be divided into four core steps: induction phase, selection phase, map drawing phase, and clustering phase. Researchers from different countries and regions vary in their approaches to each phase. The specific processes and differences will be detailed in the following sections.

Due to its complex procedure, despite its power and efficacy as a brand image measurement tool, the Brand Concept Map is not widely adopted, and its use in research is limited. Some scholars have employed it to describe the brand image of commercial brands. Fang Yi was the first to use this method in 2008, creating a Brand Concept Map for "Xinguang Jewelry" in Zhejiang (Fang et al., 2008). Wang Danni used the method to study the brand image of "People's Daily Online" (Wang et al., 2014), while Wen Yao created a Brand Concept Map for "Jiaduobao" (Wen et al., 2015). This method has also been applied to the measurement of city brand images. Ji

Chunli and Zeng Zhonglu used this method to construct the perception network of Macao's city brand image (Ji et al., 2017), and Liu Ying studied the brand image perception of historical and cultural districts in Guangzhou using the Brand Concept Map (Liu, 2021). Korean scholars used the Brand Concept Map to investigate the impact of individual residents' differences on their perceptions of a place's image, examining the city image of Seoul (Ci and Choi, 2016). Although research using the Brand Concept Map is limited, its application to measure city brand images has been validated by previous studies, demonstrating both validity and reliability. This study employs the method to measure the brand image of Chongqing, demonstrating its scientific rigor and feasibility.

While the studies mentioned above have all employed the Brand Concept Map, they have generally stopped at a superficial description of the survey results, lacking an analysis of the relationships and strengths between individual associations. Based on the macroscopic description, this study further explores the relationship between items and the unfinished meaning outside the items.

3. Methodology: Establishing a city brand concept map

Among all tourist cities, Chongqing is the only municipality listed in the second batch of China's outstanding tourist cities published by the National Tourism Administration in 2000. Chongqing's city brand image has been continuously evolving over the past 20 years (Liu, 2009). From side capital, foggy capital, mountain city, to hot pot, beauties, and then to the 8D magic city, Chongqing's city brand has changed from single and flat to three-dimensional and multi-dimensional. Its tourism industry has also flourished due to the richness of city brands. Chongqing's city brand development is representative and worthy of further research (Zhang et al., 2009), so this study takes Chongqing, an internet celebrity tourist city, as an example.

The subjects of this study are local youth in Chongqing. Local youth include two attributes, the first is the geographical attribute, which requires the respondent to be a local, and the second is the age group of the respondent. Local people are people within the administrative jurisdiction of the city (Zhang, 2004). Since one of the research purposes of this study is to explore the impact of living practices in the city-on-city brand perception, combined with the convenience of operation, this study will Chongqing Locals are limited to those who have lived in Chongqing for ten years or more. According to the definition of the United Nations, youth refer to people aged 15 to 24 years (The United Nations, 1981).

In summary, this study selected 53 people aged 15 to 24 who have lived in Chongqing for ten years or more as the survey subjects, including 26 women and 27 men. To explore the survey respondents' perception of Chongqing's city brand image, and to show the degree of association between the perceived elements and Chongqing and the correlation between the elements, the brand concept map method mentioned above was adopted. The following is the detailed process of drawing the brand concept map.

3.1. Induction and selection

During the induction stage, survey participants were encouraged to engage in free

association, collating their perceptions of the brand image of Chongqing. At this stage, it is not necessary to conduct surveys on all survey participants, and only need to conduct in-depth interviews with some survey participants. Specifically, participants were asked, “When you think of the brand ‘Chongqing’, what elements come to mind?” Participants were requested to generate a minimum of 25 elements through free association, which are referred to as “items” in the subsequent text. This stage involved interviewing 9 survey participants and gathering a total of 280 items.

In the selection stage, it is necessary to sort out the items with high occurrence frequency-the percentage of occurrence frequency is greater than 50%. Initially, the collected items were standardized in terms of wording. For instance, items such as “high attractiveness”, “good-looking people”, etc., which referred to the attractive appearance of residents, were consolidated into the single item “handsome men and beautiful women”. Similarly, items like “chili peppers”, “love for spicy food”, etc., denoting culinary characteristics, were combined into the item “can’t live without spicy food”. Additionally, items like “taxis drive fast”, “yellow Ferrari”, etc., indicating fast taxi speeds, were unified under the item “taxi racing car”. The occurrence frequency and percentage of the organized associative items were tabulated and analyzed. Through a combination of statistical data and the subjective judgment of the investigators, items with occurrence percentages exceeding 50% were selected. **Table 1** presents the initial associative items selected. Each survey participant mentioned the characteristics of “enthusiastic residents” when thinking about Chongqing. Although the occurrence rates of the items “Culinary capital” and “Hongyan spirit” were only 33%, the investigators deemed the former to be comprehensive and the latter to represent a significant spiritual image of Chongqing. Therefore, these two items were also included in the final list of determined brand-associative items.

Table 1. Initial associative item selection.

Brand associative item	Occurrence percentage (%)	Brand associative item	Occurrence percentage (%)
Enthusiastic residents	100	Spicy food lovers	67
Hotpot	89	Street-side noodles	67
Handsome men and beautiful women	89	Taxi racing car	56
Mountain City	89	Ci Qi Kou	56
Internet-famous city	89	Beautiful scenery	56
8D city	78	Well-developed Metro system	56
Misty City	78	Hong Ya Cave	56
Chao Tian Men	67	Cyberpunk	56
Confluence of Two Rivers	67	Hot summer	56
City of bridges	67	Beautiful night view	56
Mountain City’s Bangbang Army	67	Hongyan spirit	33
Rich hip-pop atmosphere	67	Culinary capital	33

3.2. Map drawing phase

Taking the brand concept map drawn by John as an example, the operation process is explained to the survey subjects: first, the items that they think are related

to Chongqing are connected to “Chongqing”, and then the other items that they think are related are connected to each other. The strength of the correlation is expressed by the number of lines, and the items with the strongest correlation are connected by three lines, and so on. The participants were given a card with 24 officially confirmed Chongqing brand association items, and the respondents were asked to draw a Chongqing brand concept map based on their cognition. A total of 53 brand concept maps were recovered at this phase.

3.3. Clustering phase

In this phase, the collected 53 brand concept maps were encoded and subjected to statistical analysis. In alignment with the research purpose and methodological requirements, the following aspects were analyzed:

- a) The frequency of appearance of the 24 formally determined brand associative items in all concept maps, to determine the “core items” that would appear in the final map;
- b) The number and strength of associations between each brand associative item and the brand “Chongqing” itself, to determine the “first-layer items” directly linked to “Chongqing” in the final map;
- c) The number of connections between each brand-associative item and other items, to ascertain the associations that would be presented in the final map;
- d) The relative positions of each brand-associative item concerning other items are achieved through the operation of upper-layer and lower-layer indices. A brand-associative item might directly connect to “Chongqing” or simultaneously connect to other items. The upper layer refers to items that are closer to “Chongqing” in the entire chain of associations, while the lower layer refers to items at the end of the chain. If an associative item is in the middle of the chain, it is not counted. The statistical values for each of these indicators are presented in **Table 2**.

Table 2. Occurrence frequency of organized associative items in maps.

	Occurrence frequency	Occurrence percentage (%)	First-layer occurrence	First-layer percentage (%)	Upper layer occurrence	Lower layer occurrence
Hotpot	50	94.34	45	90.00	47	20
Hot summer	49	92.45	46	93.88	31	20
Mountain City	47	88.68	46	97.87	30	10
Spicy food lovers	46	86.79	38	82.61	28	21
Misty City	40	75.47	36	90.00	23	16
Street-side noodles	40	75.47	31	77.50	0	28
Hong Ya Cave	39	73.58	29	74.36	47	10
Internet-famous city	38	71.70	35	92.11	62	8
Chao Tian Men	38	71.70	30	78.95	29	17
Ci Qi Kou	38	71.70	30	78.95	0	17
Beautiful night view	37	69.81	28	75.68	16	19
Handsome men and beautiful women	36	67.92	32	88.89	32	9

Table 2. (Continued).

	Occurrence frequency	Occurrence percentage (%)	First-layer occurrence	First-layer percentage (%)	Upper layer occurrence	Lower layer occurrence
Well-developed metro system	34	64.15	26	76.47	19	21
Culinary Capital	33	62.26	31	93.94	17	19
8D City	32	60.38	24	75.00	16	18
Confluence of Two Rivers	32	60.38	28	87.50	38	12
Enthusiastic residents	31	58.49	27	87.10	21	6
Mountain City's BangBang Army	30	56.60	21	70.00	0	29
City of Bridges	29	54.72	23	79.31	3	20
Taxi racing car	29	54.72	21	72.41	4	29
Hongyan spirit	28	52.83	25	89.29	8	3
Beautiful scenery	22	41.51	18	81.82	40	11
Rich hip-pop atmosphere	20	37.74	13	65.00	0	24
Cyberpunk	17	32.08	11	64.71	12	16

Once the data has been collected, the final brand concept map can be completed following the steps outlined:

3.3.1. Determine the “core items” that will appear in the final map

Core items are those that have relatively frequent co-occurrence with “Chongqing” and will directly or indirectly connect to “Chongqing” in the final map. This is represented by the occurrence rate of the item on the map, which should exceed 50%. Among the 24 items, only three associative items, namely “Rich hip-hop atmosphere”, “Beautiful scenery”, and “Cyberpunk”, were identified as non-core items. If these items do not exhibit strong associations with core items, they will not appear in the final map. Among the 21 associative items identified as core items, “Hotpot” had the highest occurrence rate at 94.34%, indicating a strong association between hotpot and Chongqing.

3.3.2. Determine the “first-layer items” that are directly connected to “Chongqing” in the final map

Within the core items, those that have a first-layer occurrence rate exceeding 50%, and whose frequency of occurrence in the upper layer is greater than that in the lower layer, are referred to as final first-layer brand associative items. They will be directly connected to “Chongqing” in the final map. The first layer ratio is the ratio of the number of entries in the first layer to the total number of maps in the map. According to statistics, a total of 12 core items were judged as first-layer items, as shown in **Table 3**. Among them, “Mountain City” had the highest first-layer occurrence rate, indicating a direct association between “Mountain City” and Chongqing. Non-first-layer items will appear in the final map by connecting to other core items.

Table 3. Overview of items.

Core items	First-layer items	Enthusiastic residents, Hotpot, Handsome men and beautiful women, Mountain City, Internet-famous city, Misty city, Chao Tian Men, Confluence of Two Rivers, spicy food lovers, Hong Ya Cave, Hot summer, Hongyan spirit
	Non-first-layer items	City of bridges, Mountain City’s Bangbang Army, Beautiful night view, Ci Qi Kou, Well-developed metro system, Taxi racing car, 8D city, Culinary capital, Street-side noodles
Non-core items		Beautiful scenery, Cyberpunk, Rich hip-pop atmosphere

3.3.3. Determine the connections of “core items” that will appear in the final map through the “number of connections between core items”

There is a significant difference in approach between Chinese and foreign scholars at this phase. Foreign scholars follow John’s method, first find the total number of connections in each map, draw a scatter plot of the number of connections and the corresponding number of maps, and find the number of maps corresponding to the turning point of the scatter plot. When the number of occurrences of the same connection in all samples is greater than this value, it will be included in the final map (John et al., 2006). Chinese scholars omit the step of counting the total number of connections in the map, and directly count the number of occurrences of the same connection, draw a scatter diagram of the number of occurrences of each group of connections and the number of groups, and find the number of occurrences corresponding to the turning point in the line graph. All connections with occurrences greater than or equal to this value will be displayed in the final map. In both methods, the “turning point” refers to the point where the number of corresponding groups drops sharply in the process of increasing the number of occurrences, and the subsequent number of corresponding groups fluctuates in a stable range. The figure shows that the number of corresponding groups drops sharply from a higher value to a lower value, and the image after this point tends to be stable, and the point where the lower value is located is judged as the turning point. For the convenience of operation, this study chose the algorithm of domestic scholars. **Figure 1** is a scatter diagram of the number of occurrences and the number of corresponding groups. It can be seen from the scatter plot that in the 53 maps, there are 36 groups of links between the core items that appear only once.

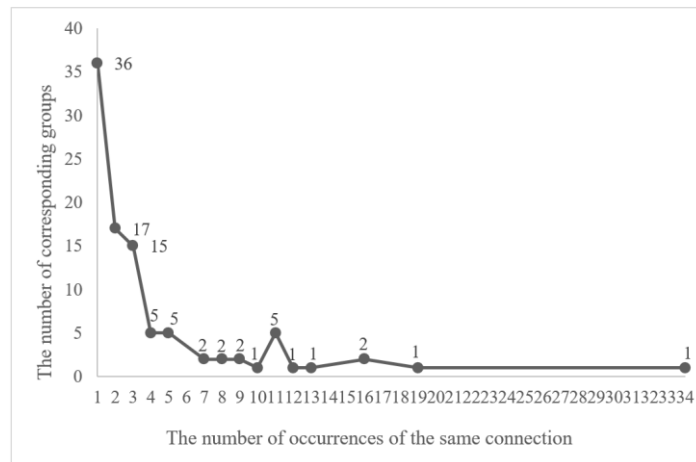


Figure 1. The scatter plot of the number of occurrences of the same connection and the number of corresponding groups.

The number of occurrences corresponding to the turning point of the scatter plot is 4 times, and the corresponding number of groups is 5 groups. Therefore, the connections between the core items that appear more than 4 times in all maps will be displayed in the final map.

3.3.4. Determine “non-core item connections”

The procedure for this step is the same as in the third step. If the connections between non-core items and core items appear in four or more maps, they will be represented in the final map using dashed lines. “Beautiful scenery” and “Cyberpunk” have connections with multiple core items exceeding four occurrences. “Rich hip-hop atmosphere” is only connected to “Handsome men and beautiful women”, and these three non-core items do not exhibit any interconnections.

Gephi is an information data visualization tool utilized for exploratory data analysis, link analysis, social network analysis, and biological network analysis. Following the generation of the model graph using Gephi version 0.9.2, the resulting visualization was re-created using the image editing software Adobe Illustrator version 23.0.2. The resultant image is shown below:

3.3.5. Determine the “strength of the connection”

In addition to showcasing the structural relationships between items, the brand concept map can also depict the strength of connections between items. The connections appearing in **Figure 2** were used to calculate the connection strength present in each map. If two items are linked by three lines, it’s recorded as 3; if there’s no connection, it’s recorded as 0. By calculating the average connection strength of each connection across all maps and rounding it, the connection strengths between items were determined. This is depicted in the map as the quantity of connecting lines, following the same rules as before.

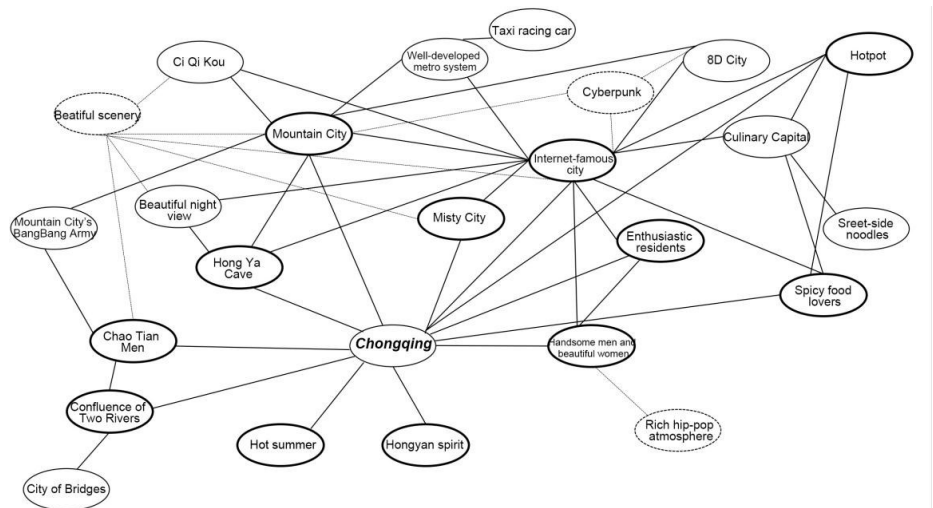


Figure 2. Initial brand concept map of Chongqing.

Figure 3 displays the final Chongqing brand concept map. The connecting lines represent the relationships between items, with the number of lines indicating the strength of these associations. The borders and connections of non-core items are depicted as dashed lines, while the borders of first-layer items directly linked to “Chongqing” are emphasized by bold lines.

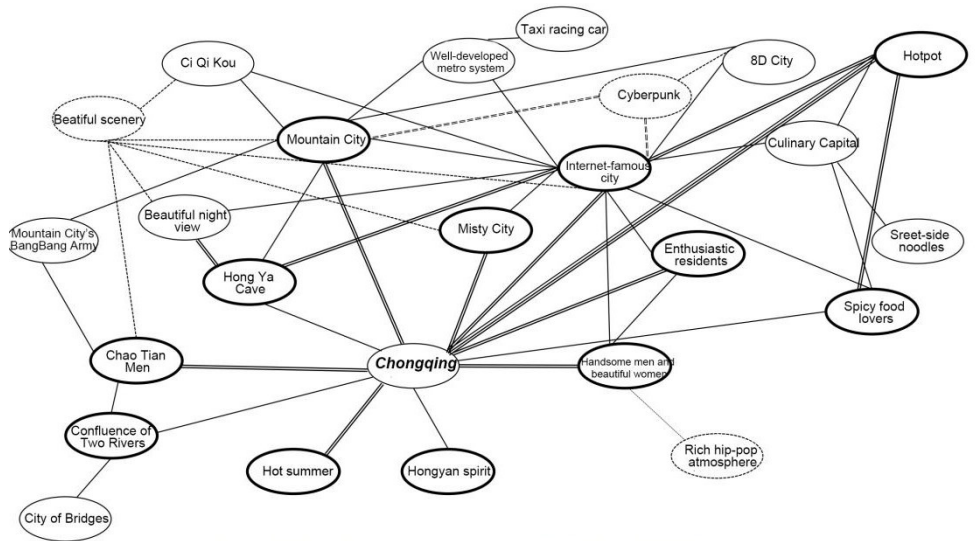


Figure 3. Final brand concept map of Chongqing.

The item most strongly associated with “Chongqing” is “Hotpot”. This means that the initial perception of the city’s brand image by local youth is tied to “Hotpot”. Following this, the descriptors for the residents’ image, such as “Handsome men and beautiful women” and “Enthusiastic residents”, as well as the descriptions of the natural features like “Chao Tian Men”, “Hot summer”, “Mountain city”, “Misty city”, and the depiction of the industrial image as the “Internet-famous city”, are the next in line. The “Internet-famous city” is classified as the description of the industrial image because “Internet-famous city” directly points to the good development of Chongqing’s tourism industry. Due to its outstanding tourism development, Chongqing has been welcomed by a large number of netizens, thus becoming a well-known city on the Internet. On the other hand, the items with the weakest direct association with “Chongqing” are “Spicy food lovers”, “Hongyadong”, “Confluence of Two Rivers”, and “Hongyan spirit”. Although local youth do associate these items with “Chongqing”, these descriptors rank lower in the perception of the city’s brand image among them. Other non-first-layer items are indirectly connected to “Chongqing” through their connections to first-layer items or other non-first-layer core items. Local youth do not immediately associate these items with “Chongqing” when they think of the city; instead, these associations require first-layer items or other non-first-layer core items to mediate the connection to establish relevance with “Chongqing”. For instance, “Mountain City’s Bangbang Army”, although a core item, is indirectly connected to “Chongqing” through the intermediary items “Chao Tian Men” and “Mountain City”. While local youth’s immediate perception of Chongqing’s brand image may not involve “Mountain City’s Bangbang Army”, by establishing connections to “Chao Tian Men” or “Mountain City”, they can extend their associations to include “Mountain City’s Bangbang Army”. Among all the items, “Internet-famous city” exhibits the most connections with other items, having connections with a total of 10 items. These items are unique resources that contribute to Chongqing’s identity as an “Internet-famous city”.

The presence of a substantial number of first-layer items in the map and the distribution of the brand concept map shows that it is not centralized around specific

items but rather dispersed. This indicates that local youth perceive direct associations between Chongqing and various items, reflecting the city’s diverse and rich urban brand image. Moreover, the numerous connections between items suggest that the components forming local youth’s perception of Chongqing’s brand image predominantly appear in a collaborative manner, rather than in isolation. Apart from this, other characteristics of local youth’s perception of Chongqing’s brand image, as depicted in the map, will be analyzed in the following sections.

4. Analyses: The characteristics of local youth’s perception of Chongqing’s brand image

4.1. Resonance: The convergence with public perception

In the final brand concept map, a total of 12 items are directly connected with “Chongqing”, and the dimensions of their corresponding city brand image are shown in **Table 4**.

Table 4. Dimensions of city brand image corresponding to the first-layer association items.

Items	City brand image dimension
Internet-famous city	Industrial image
Hotpot	Product image
Enthusiastic residents, Handsome men and beautiful women	Resident image
Hongyan Spirit	Cultural image
Misty City, Mountain City, Hongya Cave, Chao Tian Men, Confluence of Two Rivers, Hot Summer	Natural image

Throughout the above-mentioned items, Chongqing’s brand image portrayed in popular media, especially short videos and films, has resonated with the local youth. Apart from the “Hongyan spirit”, all other items have gained significant popularity in the mass media, receiving widespread recognition. As of 3 April 2022, short videos with the “Hongyadong” theme on TikTok have garnered a staggering 2.304 million likes. “Hotpot” has become an accepted label for Chongqing in the media due to its deliciousness conveyed through the phrase “this taste has opened over a hundred flavors”. Street photography of “handsome men and beautiful women” has generated high interaction on platforms like Weibo. The picturesque landscapes of “Mountain City” and the magical terrain of “8D City” are hot topics in the media, particularly on platforms like Bilibili, which are popular among younger users. Moreover, it can be seen from the correlation between “Internet-famous city” and nature and product image items that local young people believe that Chongqing’s characteristic resources as a tourist city are concentrated in natural resources such as scenic spots (“mountain city”, “smog city”) and food characteristics (“hot pot”), this is also consistent with the interpretation of Chongqing’s brand image in the mass media. Furthermore, as evident from **Table 4**, the local youth’s perception of Chongqing’s brand image encompasses various dimensions, including the vibrant industrial image of the thriving tourism sector, as well as cultural facets like the “Hongyan spirit” that receive comparatively less attention from the media. This illustrates the multi-faceted and well-rounded nature of Chongqing’s brand image. From these two perspectives, it can be concluded

that Chongqing's brand image construction has been relatively successful and has not "failed" among the local youth demographic.

Except for the "Hongyan Spirit" describing the cultural image and the "Internet-famous City" describing the industrial image, other entries describing tangible materials have two characteristics: their particularity is given by the media rather than life practice; their popularity is due to Generated by capital rather than culture.

As "silent viewers", local youths will also receive push content related to Internet celebrity attractions. These contents are from the other perspective of tourists, and they have a heterogeneous gaze on the things they are accustomed to: "Hot pot" is a daily food that they are accustomed to, "Hongya Cave" is an ancient city wall with stilted buildings as the main body, "the confluence of two rivers" and "hot summer" are the inherent natural landscape and climate of the city. Through the heterogeneous emphasis of the mass media, these everyday things have uniqueness and particularity and have gained a richer meaning.

Although the above-mentioned items are highly discussed in the mass media, they mostly attract attention because they bring shallow sensory stimulation such as vision and taste. There is a lack of cultural heritage behind them, or in other words, their cultural heritage has not yet been discovered. Local young people have lived in the city for a long time and have accumulated inner city knowledge for many years, such as the city's customs, more niche food, the city's historical stories, and the culture contained in history. There is a large distance between fast food-style commercial elements and the inner knowledge of local youth. These elements should not have become local youth's perception of the city's brand image, but driven by commercial capital, they have still entered the field of vision of local youth.

Although the newly emerged popular tourist sites and restaurants featured on "hotspot lists" are typically avoided by local youth, after these spaces undergo reinterpretation in the media space, they become "difficult to agree but have to affirm". They also cater to external expectations by recommending new landmarks and hot spots to visitors, thus altering their perception of the city's brand image. These mundane and shallow aspects of the city, which were once taken for granted, have become a significant part of the local youth's perception of the city's brand image. This phenomenon highlights the acceptance of real spaces by media spaces and the embrace of virtual knowledge by local knowledge (Qin, 2021).

4.2. Regression: The role of embodied experience

The local youth's perception of the city's brand image does not solely rely on mass media. While they incorporate the city brand image portrayed in mass media, they also anchor their perceptions in their own embodied experiences of the city. In addition to the first-layer association items, there are 9 non-first-layer core items and 3 non-core items in the brand concept map. Compared with the high popularity of the former, the latter is not the focus of tourists and media. For instance, from 30 March 2021 to 30 March 2022, the average Baidu Index for the non-first-layer core item "Mountain City Bomb Squad" was only 466, whereas the average Baidu Index for the first-layer item "Hongyadong" during the same period was 1597, which is three times that of "Mountain City Bomb Squad". These less-discussed items are rooted in the

local youth's comprehensive life practices and are, to some extent, closer to them than the first-layer items. For example, both "Hotpot" and the more easily accessible "Street-side noodles" are everyday foods, with the latter being even more commonplace. These items represent the collective memory of Chongqing held by local youth who have long resided there, forming the distinct perception that sets them apart from tourists—a niche image perception unique to local youth.

Due to their rich embodied experiences, the local youth's perception of Chongqing's brand image is concrete rather than abstract. Items that are more generalized such as "Beautiful Scenery", "Culinary Capital", "Cyberpunk" and "Night View Beauty" do not have a direct association with Chongqing. On the contrary, specific imagery that interprets these abstract concepts, such as associating "Hongyadong" with "Night View Beauty" or linking "Hotpot" with "Culinary Capital," has relatively higher relevance to Chongqing. Additionally, as local youth interact not only with the city's natural landscapes and urban infrastructure but also engage with residents in their daily lives, the characteristics of Chongqing residents are emphasized in their perception of the city's brand image. Items like "Enthusiastic Residents" and "Handsome Men and Beautiful Women", both of which describe the city's residents, are directly related to "Chongqing".

Embodied experiences and media exposure together influence the local youth's perception. Firstly, derived from their life practices, items that receive higher media attention are more closely related to Chongqing, whereas those with lower media attention are indirectly related. Mass media has transformed daily items through heterogenization, altering or enhancing the local youth's perception of these everyday elements. Secondly, embodied experiences complete the local youth's perception of the city's brand image. Based on their life experiences and knowledge of Chongqing, they establish connections between items. For example, local youth might uncover the historical background of "Mountain City Bomb Squad" originating from "Chao Tian Men" or interpret "Internet-famous City" by associating it with other items. Overall, the local youth's perception of the city's brand image is built on embodied experiences, reinforced by mass media, and complemented by tangible experiences.

4.3. Mobility: Selective emphasis on culture

Cultural image is an important part of a tourist city's brand image, which determines the connotation of a tourist city. Local youth's perception of Chongqing's brand image is broad enough but lacks cultural depth. Culture-related items are extracted from all associative items. As shown in **Table 5**, there are only three items pointing to culture in local youth's perception of Chongqing's brand image, namely "Hongyan Spirit" formed by Chongqing's historical background as the rear of the Anti-Japanese War, Chongqing's folk symbol "Mountain City's Bangbang Army", and youth pop culture "Rich hip-pop atmosphere". The strongest correlation with "Chongqing" is "Hongyan spirit", "Mountain City's Bangbang Army" is indirectly related to "Chongqing" through "Chaotianmen" and "Shancheng", "Rich hip-pop atmosphere" is indirectly related to "Chongqing" through "handsome men and beautiful women". "Mountain City's Bangbang Army" belongs to the core item, while "Rich hip-pop atmosphere" is non-core item. That is, the association between

“Mountain City’s Bangbang Army” and “Chongqing” has been recognized by more people.

Table 5. Associative items at the cultural layer.

Items	Attributes	Culture
Hongyan Spirit	First-layer item, directly linked to Chongqing	Red revolutionary culture
Mountain City’s Bangbang Army	Non-first-layer core item, indirectly linked to Chongqing	Folk culture
Rich hip-pop atmosphere	Non-core items, indirectly linked to Chongqing	Youth pop culture

The local youth’s perception of Chongqing’s cultural image is characterized by a flow. Their focus has flowed from history to reality, and the path formed has changed from historical learning to media contact. Chongqing, as a key rear area during the Anti-Japanese War, carries both the painful experience of the war and a rich cultural heritage. The “Hongyan Spirit” embodies the revolutionary spirit forged through the agonizing struggles of the war. It refers to the heroism and revolutionary integrity demonstrated by proletarian revolutionaries in their unwavering battle against the Nationalist Party and reactionary classes (Jin et al., 2015). Amid Chongqing’s tumultuous development, the “Mountain City’s Bombang Army” earned its name from its labor tools—wooden sticks—while assisting with luggage transportation in an era of underdeveloped transportation. The “Chao Tian Men” wharf served as a pivotal transportation hub and a gathering place for the “Mountain City’s Bangbang Army”. Their presence witnessed and propelled Chongqing’s growth, evolving in tandem with the city’s industrialization and urbanization. Possessing resilient optimism and straightforward enthusiasm, they embody not only folk culture but also serve as symbols of the Chongqing people’s indomitable and optimistic character (Yang, 2015). Both of these are urban cultures condensed from the history of Chongqing’s development and are rarely mentioned by the mass media. Local young people have established their understanding of the two through life practice. The relationship between “Rich hip-pop atmosphere” and Chongqing is related to the popularity of local rap labels in Chongqing in recent years. The form of “Rich hip-pop atmosphere” is lively, enthusiastic and unrestrained, which is a typical youth culture. In addition to being more youthful, “Rich hip-pop atmosphere” differs from the previous two in that it is a cultural symbol born out of the medium, rather than from the history of the city.

The reason why the change in local youth’s perception of Chongqing’s brand image is described as fluid rather than extended is that local youth have simplified their cognition of traditional culture and its symbols while incorporating youth culture into the cultural image of the city brand. The dilution of local youth’s cognition of traditional and local culture is reflected in the isolation of these cultures, and the absence of concrete things that can build ecology with them. Different from the full interpretation of “Internet-famous City”, “Martyr’s Tomb” and “Zhazidong” which are highly related to the “Hongyan Spirit” did not appear in Chongqing’s brand concept map. Such dilution and simplification are the prelude to forgetting. How to prevent local youth from forgetting traditional culture will be discussed below.

5. Discussion: Enlightenment on the construction of tourist city brand image

5.1. Heterogeneity: Excavating the daily life of local youth

Undoubtedly, a tourist city needs to shape itself into an “Internet-famous city” to enhance its brand’s visibility and influence. The “Internet-famous city”, for what is famous, is the primary problem faced by the builders of various city brands. Chongqing, ranking high in both tourist volume and discussion fervor, has successfully crafted itself into an “Internet-famous city” recognized by both the general public and local youth. The success of its brand image construction is worth emulating: mining unique resources from local youth’s daily lives and appropriately disseminating them.

City brand also needs a unique proposition, which is the “difference” of the city. This “difference” is the difference from other cities and the heterogeneous imagination of tourists about the city. Past research on the “heterogeneity” of city brands mostly focuses on differentiated positioning from the perspective of market competition strategy. For example, Xie Zongyun believes that the city positioning of Nanning, China, can be “Association of Southeast Asian Nations Window, Southern Style” (“ASEAN Window, Southern Style”), which is more prominent compared to other cities. It reflects the status, location, historical precipitation and humanistic customs of Nanning as a city, and reflects Nanning’s dual advantages in economy and humanities. (Xie, 2011) In addition, some scholars analyze the “heterogeneity” of city brands from the perspective of cultural content. Pasaribu et al. took Tasikmalaya, a famous art city in Indonesia, as a starting point to deeply explore the role of culture in forming city brand identity. The research has proven that brand differentiation has a positive impact and importance on brand recognition. It means that the more distinctive the brand differentiation can create, the stronger the brand identity it shows (Marito et al., 2019). This article synthesizes previous research and, on the basis of emphasizing brand differentiation, further proves that local youth’s perception of Chongqing’s city brand image can provide direction for Chongqing to extract city brand differentiation content. These Chongqing the living practices of local residents can satisfy tourists’ heterogeneous imagination of the city. This can be further explained by the fact that in the process of searching for differences, the life practices of local residents have a certain reference value as a unique resource of the city. Their specific interactions with the city and people in their life practices can create differences. For example, in the cognition of local youths in Chongqing, eating “hot pot” and traveling in “mountain cities” are common daily routines, but other cities do not eat hot pot and have no mountain cities, which makes Chongqing different from other cities. Then this difference has the potential to create a unique city brand.

Among residents, the lives of local young people are more in line with the preferences of the main audience who are also young people, and their lives undoubtedly have higher mining value. Extracting the city’s uniqueness from the lives of local youth, and refining it through media, not only meets the expectations of visitors’ heterogeneous imagination but also enhances the recognition of the city’s brand image among residents. For instance, in the case of Chongqing, topics derived

from practical life, after undergoing the lens of media's heterogeneity, gained local youth's recognition by standing out from numerous life details. This approach also sparks the interest of non-local youth, providing them with imaginative space.

City brand images nurtured by different types of life practices are suitable for different modes of communication. Similar to Keller's classification of the brand image into tangible "low-level factors" and intangible "high-level factors," the life practices of local youth can be divided into material and spiritual types. Each type encompasses different content, and the appropriate mode of communication also tilts in different directions. The material type corresponds to the city brand's natural, resident, product, and industrial images. It explores the sensory dimension—landscapes seen; food tasted—which involves material-level life practices. Since sensory stimulation needs to be highlighted, communication through distinct information forms accompanied by spatial narratives, propagated through social media, is more effective. Examples include Chongqing's "night scenes", "Hongya Cave", "Monorail through Buildings", and "Hotpot", frequently appearing in short, vivid, and rapid short videos. The spiritual type corresponds to the city brand's cultural image, usually portrayed through tangible cultural symbols. For instance, Chongqing's spirit of hard work and optimism is epitomized by the "Mountain City Bangbang Army". The dissemination of content related to the spiritual aspect is better suited for formats like movies, books, or graphics that have a slower pace and more whitespace, such as the portrayal and promotion of the "Mountain City Bangbang Army" in the TV series "Mountain City Bangbang Army".

5.2. Refuse to forget: Balance "fast" and "slow", "outside" and "inside"

Tourist cities usually pay too much attention to the "external" communication and neglect the "inner" communication. As mentioned above, ignoring the "internal" communication will cause local youth to forget the historical background and traditional culture of the city. As the inheritors of urban culture, they no longer pay attention to traditional culture. The cultural heritage of the city will undoubtedly gradually dissipate, the city brand will lose its cultural heritage, only the Internet-famous attractions for browsing and visiting.

Deng Yuanbing's previous research pointed out that with the widespread popularity of short videos, the role of short videos in shaping the image of cities has gradually manifested, resulting in a number of "Internet red" cities. Among them, city-related content such as local culture, local cuisine, and urban landscape is more likely to become "explosive", while high-popularity content related to government image, history and culture, and natural landscape is less (Deng et al., 2019). This also shows that due to factors such as the sociability and entertainment of TikTok, the content about urban image communication in TikTok is mostly entertainment and urban, but lacks in-depth content about urban culture or spirit. Therefore, closely relying on the transmission of streaming media such as TikTok is inevitably not enough, and the city still needs more diversified content to create a three-dimensional and vivid image. This study suggests that we still need to think critically about this fast-food culture. Fast-food brand symbols can increase brand awareness in a short period and bring more benefits to tourist cities. Brand symbols that need to slow down and savor carefully

are not popular on the Internet which pursues efficiency. But a city brand that only retains “fast” without taking into account “slow” will have no vitality.

Tourism cities can indirectly improve tourists’ awareness of the cultural level of the city brand by strengthening the history and cultural transmission of residents. This can not only ensure the inheritance of culture, but also not affect the shaping of the image of Internet celebrities. Moreover, the spontaneous dissemination to tourists by residents is easier to be accepted by tourists, the dissemination effect is better, and the brand image construction of tourist cities is more deeply rooted.

6. Research conclusion and prospect

The status of city brand building is an important reflection and symbol of city development. To find out the effect of city brand building is an important prerequisite for optimizing brand management, which can provide guiding suggestions for city brand positioning and construction strategies. With the acceleration of globalization, the competition between cities is becoming increasingly fierce. City brand image has become a key factor for cities to attract global resources, capital and talents. As a municipality directly under the central government and an important tourist city in China, Chongqing’s brand image is not only related to the domestic image but also directly related to the international image and attraction. This study explores the characteristics and formation mechanism of local youth’s perception of the city brand image through the method of the brand concept map and innovative analysis and puts forward suggestions on the construction of tourism city brands. The conclusions provided important theoretical support and practical guidance for the research in this field and the construction of the city’s brand image.

6.1. Theoretical significance

This study is based on the method of brand concept mapping and is rooted in the research perspective of brand image perception. It aims to explore the special relationship between local youth and their respective cities in a bidirectional interaction, providing an in-depth and improved understanding of the perception experience of brand images. The theoretical contributions are mainly manifested in two aspects: research methodology and research subjects.

On the research methodology level, while questionnaire surveys are commonly used in studies related to urban brand image perception, this study employs the method of brand concept mapping, which combines the advantages of both quantitative and qualitative research methods. The scientific and practical viability of this method has been validated through numerous studies both domestically and internationally. This approach not only empowers the participants, allowing them to more actively contribute to the study, but it also vividly presents specific elements of city brand images. Moreover, through systematic analysis and statistical processing, the results can be visually represented in the form of diagrams. Therefore, this method enables a more targeted and intuitive presentation of urban brand images, leading to a more comprehensive understanding of urban brand construction. In comparison to existing research utilizing brand concept mapping, this study innovatively highlights the significance of analyzing the relationships and strengths of associations between

different elements. Most of the existing researches focus on the representational description of the research results, and less on the data relationship such as the correlation degree and correlation strength among the items in the results. This study, drawing on Keller's characterization of brand image attributes as its theoretical foundation, innovatively introduces the analysis of inter-item correlations and association strengths. It quantifies the associations and distinctions among various elements and further explores the underlying mechanisms, thereby expanding the research and application of this method.

From the point of view of the research object, this study focuses on the perception of city brand image, subdivides the research objects, and focuses on the local youth groups that have received less attention in previous studies. It analyzes the characteristics and formation mechanisms of local youth's perception of brand images, revealing the current state of urban brand construction from a fresh perspective. Based on these mechanisms, specific recommendations for the dissemination of urban brands are proposed. The innovative research perspective provides insights and methods for the future study of the mutual influence between local youth and their cities, while also offering valuable inspiration for city brand construction.

6.2. Practical guidance

This study provides an in-depth analysis of the effectiveness of Chongqing's brand image construction, offering valuable guidance and reference significance for tourist cities across the world.

Through the method of brand concept map, this study found that the local youth's image perception of the Chongqing brand has three characteristics: "resonance", "return" and "flow". On this basis, this study analyzes the formation mechanism of local youth's perception of city brand image through the innovative interpretation of the correlation strength in the results of the brand concept map method. Local youth's perception of city brand image is based on embodied practice, selectively reinforced by mass media, and complemented by embodied experience.

Accordingly, this study provides three inspirations for city brand building. First, in addition to advertising communication, embodied practice and media contact are two paths that have a positive impact on city brand image construction. Although they are not identified as advertising content, they play the role of advertising and will directly affect the audience. The cognitive image of a city brand is an important strategy for city brand building. Second, in brand image construction, a unique approach can be taken by starting from the life practices of local youth, and mining distinctive resources for city brand utilization to create a sense of uniqueness. Third, brand communication can be viewed from both an "external" and "internal" perspective. In internal communication, particularly with local youth, emphasis should be placed on educating them about the city's traditional culture and historical background to provide the city brand with enduring vitality.

6.3. Limitations and future research directions

This study explored the perception of local youth towards the brand image of Chongqing. However, certain limitations need to be acknowledged. First of all, this

study only explored the cognitive level, and future studies can further deepen the measurement at the attitude level to conduct a more comprehensive study on the perception characteristics of local youth. Secondly, the study categorized perception channels of city brand image into embodied practices and media exposure. However, real-world perception channels are more diverse, offering various angles of segmentation and entry points. Future research could explore a broader range of perspectives around perception channels. Thirdly, this study only takes Chongqing as the research object. In the future, we can further explore the differences in brand image perceptions of local youth in different cities. Lastly, this study only investigated local youth (15–24 years old) but did not stratify this age group. In the future, “local youth” of different age groups can be extracted to build a brand concept map. At the same time, this study does not distinguish between young people who grew up in Chongqing and young people who settled in Chongqing from abroad or other cities. Future research can distinguish based on this dimension when selecting samples. These limitations provide ample room for further exploration in future research endeavors.

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