

City Image Research: Theoretical Frameworks, Perspectives, and Methodologies

—A Citespace Bibliometric Analysis of SSCI Literature from 2013 to 2023

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Abstract: City image research, as a burgeoning paradigm within communication studies, lacks a comprehensive analysis and empirical research on foreign city images. Employing bibliometric methods, this study utilizes CiteSpace to visually analyze research literature on city images published in SSCI journals between 2013 and 2023. It visualizes co-occurrences of keywords, clusters, timeline of main themes, and knowledge maps. The findings reveal that foreign city image research is characterized by diverse perspectives, spanning disciplines such as geography, sociology, and psychology, constructing complex theoretical frameworks. Methodologically, it exhibits depth and complexity, encompassing macro and micro levels, incorporating traditional quantitative methods and integrating new computational methods like computer vision, network analysis, and spatiotemporal analysis. Moreover, numerous studies combine city image analysis with urban planning, marketing, community development, utilizing big data and artificial intelligence technologies for in-depth analysis. This paper summarizes the field and current status of foreign city image research, offering theoretical perspectives and methodological references for domestic studies.

Keywords: SSCI, City Image, Citespace, bibliometrics

1. Introduction

The emphasis on the personality and distinctive features of cities has long been a primary goal in modern urban development planning. Crafting a "city image" has become one of the most crucial aspects of urban planning and development worldwide. The city images represent a comprehensive manifestation [1] of a city's intrinsic cultural essence and external symbolic characteristics, effectively propelling urban economic development, nurturing urban culture, and consolidating civic consciousness. Domestically, theoretical research on city image commenced relatively late. In 1989, Wu Liangyong and others proposed the concept of urban beauty from the perspective of environmental aesthetics in "The Creation of Urban Beauty," highlighting that the complexity of urban social elements leads to varied perceptions of cities [2]. However, starting in the 21st century, with the rapid pace of urbanization, scholars increasingly focused on the significance of city images. The evolution of city images progressed through four stages: urban landscape design, preservation of

historic districts, shaping urban symbols, and city image marketing. While there was a certain accumulation and advantage in the preliminary stages, the era of constructing China's indigenous image-building system presents new challenges for disseminating city images. Presently, domestic research on city image mostly concentrates on the efforts of relevant departments to shape and disseminate city images through means such as filming city image documentaries, hosting events, and constructing infrastructure [3-5]. In the digital era, scholars began focusing on media perspectives like self-media and short videos' immersive dissemination of city images or studying the construction of city images based on different symbolic representations [6-8]. In comparison, foreign research on city images emphasizes quantitative studies under a multidisciplinary perspective, such as brand personality and culture in city images, perceptions of city image graphics in specific regions, the impact of significant events on city images, integration of intelligent information technology with city images, and perceptions of city images in tourist destinations and organizational activities. This discrepancy between domestic and foreign city image research reveals a late start in domestic research, a relatively singular research object, and methodological systems. Western research on "city image" started earlier, resulting in abundant research systems and achievements, extensively employing interdisciplinary perspectives including sociology, psychology, architecture, and geographic information science. Overall, there exists a certain disparity between domestic research on city images and foreign research in terms of research objects and methods. The academic community lacks a comprehensive analysis of foreign city image publications and their academic impacts, without empirical research focusing on highly cited English papers on foreign city image studies. Thus, this paper aims to examine foreign city image research, establish relevant databases, conduct empirical studies on highly cited papers related to city images, delineate the progress of international research on city images from an analytical standpoint, mainly exploring the following research questions:

1. What are the main focuses of city image studies in the SSCI from 2013 to 2023? This study will analyze the keywords and research emphases related to city images in the SSCI.
2. What are the research paths and measurement methods for city image studies in the SSCI? How do they measure city images and what are the research directions at different levels? This study will conduct keyword clustering based on abstracts related to city images in the SSCI, analyzing the main research paths and measurement methods.
3. Under the context of globalization, what influences and insights do foreign city image studies offer for domestic research? By analyzing the overall research directions and methods of foreign city image studies, this study proposes an independent research system for city image communication in China.

2. Research Design and Analysis of Related Results

The Web of Science database is the most comprehensive and reliable database for conducting English literature bibliometric analysis, encompassing over 12,000 high-impact and high-quality academic journals [9]. SSCI-indexed journals are commonly used and important international core journals whose publication quantity and quality to some extent reflect a specific discipline's competitiveness in the international publishing domain [10]. This study's data is derived from SSCI journals focused on city images from 2013 to 2023. Using the Web of Science's core collection database (Science Citation Index Expanded), a search was conducted using the keywords "City images," "The city of image," and "City branding." The search criteria included article type and language (English) and specified the publication date from January 1, 2013, to August 1, 2023. This search retrieved 994 literature records related to city images (as of August 7, 2023). Subsequently, using CiteSpace, the data underwent format conversion and preprocessing. The visualization analysis was based on keywords as nodes, resulting in 237 keyword nodes and 358 keyword connections, depicted in visual interfaces as shown in Figure 1 and Figure 2.



Figure 1: Co-occurrence network of keywords

The co-occurrence graph provides a visual representation of high-frequency words, hot topics, main themes, and their relationships within this research field. As shown in Figure 1 of the keyword graph analysis, hot topics related to city images are depicted based on word frequency, where higher frequency indicates greater prominence of the respective keywords. The analysis indicates a collaborative governance approach in city image research, with the most prominent keywords, besides "city image," including "destination image," "city brand," "local brand," "brand image," and "urban culture," occurring 120, 118, 106, and 80 times, respectively.

Utilizing CiteSpace for automatic cluster identification, a visualization of the overall literature creates a cluster map, providing a clear presentation of research hotspots. Employing the LLR algorithm in the analysis generated Cluster Graph 2, where a Modularity Q (Q value) above 0.3 signifies a significant modular structure, and a Mean Silhouette (S value) above 0.5 indicates reasonable clustering, while an S value above 0.7 ensures convincing clustering results. The outcomes reveal that the Q value for overseas literature is 0.7131, and the S value is 0.8647, indicating a clear modular structure and credible clustering results.



Figure 2: Cluster Graph of Keywords

Combining the keyword frequencies from Figure 1 and employing automatic clustering with CiteSpace, a visual cluster graph, as illustrated in Figure 2, delineates significant themes, with line colors representing different years. The largest clusters identified are: "destination image," "urban

governance," "brand image," "local brand," "sports events," "case study," "brand loyalty," "consumer behavior," and "city image."

Furthermore, a timeline analysis of keywords (Figure 3) tracks the developmental trajectory of city image-related research. The Timeline, based on the size and chronological order of key clusters, contrasts and presents the sequence of keywords associated with the clusters over time, providing a more intuitive display of research hotspots and trends.

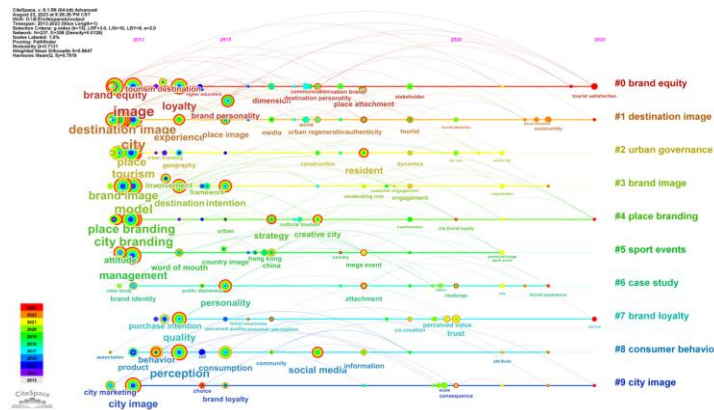


Figure 3: Timeline Graph

From Figures 2 and 3, it is evident that the effectiveness of keyword clustering modules is high, indicating a strong network homogeneity. Combining both analyses further explores the hotspots and trends in city image studies within SSCI. The co-occurrence and clustering of keywords highlight that the main focal points of city image research revolve around "destination image," "urban governance," "brand image," "local brand," "sports events," and "urban culture." Observing the timeline, city image research predominantly focused on "destination image," "city brand," and "brand management" since 2013, maintaining vitality. However, from 2020, new research trends emerged, focusing on topics like "tourist satisfaction" and "resident perception" related to city image studies.

Based on this research, the paper intends to conduct further analysis of foreign city images through the following steps: Initially, establishing common terminology and conceptual foundations by analyzing the concept of city images and related dimensions. Subsequently, it delves into the interaction between city images and city branding, urban culture, and media construction. Building upon this foundation, the paper aims to explore how the measurement of city images evaluates the success or failure of city images, providing tools and methods for scholars and practitioners. Lastly, it examines the widespread impact of city images on society, connecting them with broader political, economic, and social contexts.

3. Evolution of City Image Theoretical Concepts and Related Dimensions

The definition of "city image" was first proposed by Kevin Lynch in 1960 in his work "The Image of the City." Lynch believed that the city image is the cognitive result of individuals and groups in a city obtained through questionnaires, interviews, and cognitive maps. It represents the overall impression of a city in the public's mind, encompassing various aspects such as the city's history, culture, population, fractures, architectural styles, and economic development. [11] As economic and social developments progressed, scholars further explored and studied the definition and composition of city images based on Lynch's theory. Some scholars view the city image as a multi-dimensional perceived entity, considering it as individuals' subjective impressions of the city formed through the collective influence of mass media, personal experiences, interpersonal communication, memory, and

environment. It reflects stakeholders' beliefs, thoughts, and impressions of the city, representing a combination of objective social existence and subjective social evaluation.

Kevin Lynch's "The Image of the City" has had a lasting impact on urban planning theory. However, with the advent of the digital age, the scientific rigor of city image theory has been questioned. Some scholars believe that Lynch's theory has not been adequately tested, and subsequent research has often simplified Lynch's assertions as given. [12] Additionally, Lynch's theory overly focuses on the physical form of the city while neglecting non-physical factors such as culture, spirit, and history.

To address these issues, subsequent scholars expanded the theory of city images. They incorporated urban culture and spirit into the concept of "city image," considering it as a comprehensive assessment by the public of a city's internal and external strengths and future development, reflecting its characteristics and style. [13] For instance, Hall et al. explored the relationship between city image and urban history, culture, society, and economic development through a case study of Budapest. [14] Giraldi et al. viewed city images as cognitive and emotional evaluations of places by people. [15] Studies by Zhang et al. on the Beijing Olympics [16] and Hospers et al. on the Netherlands discussed the role of urban culture in shaping city images, emphasizing the significance of cultural spirit in the formation of city images [17].

Moreover, scholars have approached city image studies from the perspective of city branding, extending the scope of city image. For instance, Kavartzis et al. emphasized the relationship between city image and city brand from a marketing perspective, defining city image as a city's presentation to the external world through activities such as tourism, commerce, and cultural events. They perceive city images as marketing tools to attract investors, industrial development, and tourists. [18]

Reviewing the related literature, foreign city images are considered multi-dimensional entities perceived from various perspectives. With the development and intersection of multiple disciplines, scholars from different academic perspectives have focused on this field. City image theory has been referenced in research literature from disciplines such as geography and psychology. Currently, foreign research related to the concept of city images is primarily applied in the fields of economic management, urban planning, and psychology.

From an economic management perspective, city image research primarily integrates the fields of marketing and tourism management. Since the 1980s to the 1990s, the city image has been considered a crucial marketing tool. Scholars like Ashworth and Kotler view the city image as a comprehensive representation of visual symbols, city values, and characteristics. They argue that it enhances a city's allure, attracting more investment, talent, and tourists. Additionally, Crompton defines destination image as the knowledge, feelings, and overall evaluation tourists acquire about a destination [19]. Beyond its role as a marketing tool, the city image is deemed a significant factor in stimulating tourism economic development, leading to numerous studies on the destination image of cities. For instance, Zenker and Boisen discuss how tourists and residents comprehend and shape the city image, while Potwarka et al. delve into the autonomy of host cities for the 2014 Winter Olympics and the formation of their destination image. These studies offer diverse perspectives on the tourism aspects of the city's image, emphasizing its pivotal role in marketing and tourism management.

In urban planning, Kevin Lynch's influential book "The Image of the City" (1960) remains pivotal. As the discipline has evolved, the research on city image has become more diverse, encompassing urban planning, spatial distribution, city landscapes, and cultural geography. Scholars like Luca D. examine how urban planning shapes the city image from an architectural style perspective. Others, such as Jamie Peck et al., explore how small Canadian Arctic towns leverage their geographic advantage to shape their city image. Furthermore, Azam Raha Bahrehdar et al. use Flickr and OpenStreetMap to construct interactive city images, illustrated by the streets of London. These studies

reflect the wide application of city image in urban planning and geography, highlighting the crucial role of geographical environment, urban space, and culture in city image formation.

In the field of psychology, early works by Lynch and Appleyard represent the foundation of city image research [20]. Subsequent studies, like Robert Bechtel's book "Environmental Psychology" (1997), further delve into and articulate environmental psychology, including people's perception and cognition of urban environments and how these perceptions and cognitions influence their psychological states and behavior. Research in the psychology of the city image provides a fundamental theoretical basis and insights for subsequent city image studies, emphasizing the significant role of people's perception and cognition of urban environments in constructing the city image.

4. The Role of City Image in City Branding and Urban Culture

City branding, originating from brand management and marketing theories, has evolved into a pivotal development direction in marketing since the 1990s. Amidst economic globalization and urbanization, the competition among cities and regions intensifies. To attract investors, tourists, and residents, local governments have begun incorporating branding strategies to enhance a city's attractiveness and competitiveness by shaping and disseminating its unique image and value [21]. This underscores the inseparable relationship between city image and city branding, where understanding and perception of the city image are prerequisites for creating city brands.

The initial stages of urban branding theory focused primarily on theoretical construction and conceptual definition. Philip Kotler et al. were among the first in 1993 to apply marketing concepts to city management and planning, introducing the concept of "city marketing" to illustrate how branding can enhance a city's appeal. Simon Anholt further expanded the notion of city branding, encompassing diverse factors such as physical environment, cultural attributes, people, policies, economy, and history, while proposing effective methods for city brand construction. In essence, urban branding, stemming from marketing theories, gradually integrated into various fields like urban planning, tourism management, and cultural studies, becoming a significant research subject and practical tool.

Post-millennium, urban branding studies delved deeper into various domains within cities such as tourism, urban culture, and investments [22]. Scholarly research emphasized the significant role of large-scale events in crafting city brands, particularly in positively impacting infrastructure development, domestic and international investment attraction, and establishing a national brand heritage.

In the digital era, urban branding research began focusing on new communication channels and strategies, emphasizing theoretical development, empirical studies, and application strategies. Studies utilizing social media platforms to explore city brand dissemination [23], employing social network analysis for understanding city brand formation and dissemination [24], and identifying image dimensions to enhance comprehensive city image understanding highlighted the critical role of digital tools and channels in city brand construction [25].

City image constitutes part of city branding, while urban culture serves as a crucial factor in shaping this image. City image research concerns the cognitive representation of a city, reflecting people's perceptions, understanding, and evaluations of a city [11]. This representation relies not only on the physical features like buildings, parks, and streets but also encompasses the city's culture, history, economy, and social environment [26]. In this sense, urban culture, as a set of values, represents the accumulated urban life and cultural concepts, serving as the genes of city formation and influencing how people perceive and evaluate cities. Urban culture comprises tangible and intangible elements, encompassing material forms—historical and modern city layouts, neighborhoods, cultural venues, historical sites, buildings—and intangible non-material cultural

heritage, traditional culture, or spatial carriers—urban spirit, institutional norms, and customs [27]. Urban culture manifests as an organic unity of external manifestations and internal spirits, forming an integral part of the city image.

Contemporary studies shaping city images and branding methods regarding urban culture utilize interdisciplinary and multi-dimensional perspectives. They not only focus on a city's material attributes but also delve into its socio-cultural and functional characteristics. For instance, Kavaratzeris et al. emphasize how expressing cultural factors influences city images and brand construction from the perspective of tourist destination selection; Xia Peng et al. analyze big data through geotagging for city image perception and impressions based on city image geography [28]. Additionally, scholars have focused on the mediating role of cultural heritage in shaping the city image. For instance, Mariusz Szubert et al. suggest that urban cultural heritage and cultural elements serve as crucial factors supporting the development of tourist destinations and play a significant role in creating an attractive city image.

Urban branding is a field that combines theoretical depth and practical breadth. Urban culture serves as an essential resource that embodies the city image. Both urban branding and culture become crucial pathways for shaping and disseminating the city image.

5. Measurement Research on City image

Measurement studies of city image have been significantly quantitative and empirical in SSCI journals between 2013 and 2023, with 82.4% of research employing empirical and computer-based quantitative research methods. Most studies focus on specific cities, concentrating on methods to measure and evaluate city images, aiming to provide assessment tools and methods for scholars and practitioners.

Lynch (1960) first proposed methods to measure city images, conducting extensive surveys and creating mental maps, defining five elements of city images: landmarks, nodes, paths, edges, and districts. Subsequent researchers advanced this concept further. Nukhu & Singh further defined city images by four aspects: political-economic factors, hardware infrastructure, social environmental factors, and historical-cultural factors. With ongoing research and interdisciplinary integration, methods for measuring city images continuously diversify, expanding from macro to micro scales. This is evident in the following aspects:

5.1. Multi-dimensional and Multi-attribute Measurement

Reviewing literature on city image research since 2013, the city image is perceived as a multidimensional concept. This new perspective drove multifaceted approaches to measure city images. Researchers attempted to develop tools that capture the complexities of city images. For instance, as early as 1993, Echtner et al. developed a multidimensional framework for local image construction, quantitatively measuring both functional and psychological elements [29]; Shaked Gilboa et al. devised a comprehensive rating scale for city images, specifically measuring city resident and tourist perceptions [30]; Camprub íet al. analyzed information sources from multiple dimensions, studying the correlation in the formation of multi-city images [31].

5.2. Network Analysis-Based City Image Measurement

Since 2013, city image research has attempted to merge qualitative and quantitative methods to comprehensively capture the diversity and complexity of city images. In this context, network analysis propelled the advantages of quantitative measurement of city images. With the rise of social media and online reviews, numerous studies began exploring quantitative assessment of city images using methods like network text analysis, sentiment analysis, to evaluate city images based on user

comments and descriptions on social media platforms [32]; Sobolevsky et al. employed network analysis methods to explore the correlation between consumer behavior and cities [33]; scholars also used computational methods to analyze the visual perception of urban public spaces [34].

5.3. User Perception-based Measurement of City Image

Recent measurement studies have shifted towards considering the subjective perceptions and emotions of users rather than solely focusing on a city's objective characteristics. Collecting user perception data through surveys or interviews and employing statistical analysis methods to measure city images have become prevalent. For example, Mohamad et al. conducted a questionnaire-based analysis of tourists' evaluations of Malaysia's destination image and their future behavioral intentions [35]. Additionally, research linking city image with factors such as city competitiveness, satisfaction, loyalty, or tourism decisions has increased. Tussyadiah et al. explored tourists' emotional responses to destination images using questionnaire surveys and psychological measurements. Batel et al. studied local identity, involvement, and emotional climates in rural communities, providing significant foundations for city image measurement.

5.4. Composite Multi-source Data-based Measurement of City image

With the advent of the big data era, measurement studies of city images have begun to focus on integrating multiple data sources (such as social media data, satellite images, survey data, etc.). For instance, Guerry et al. used geotagged social media data to explore landscape aesthetics, opening new avenues for measuring city images [36]. Corti combined social media and satellite imagery among other data sources to comprehensively analyze city images [37]. Some scholars quantified the visual connotations of city streets by combining street view images with user evaluation data [38].

Comparative analysis reveals strengths and weaknesses in the aforementioned research. Comprehensive quantitative methods based on multidimensional and multi-attribute approaches comprehensively uncover the complexity of city images, capturing physical, socio-cultural, and economic characteristics. However, their statistical complexity and the integrated value of perspective selection must be carefully considered. Quantitative methods based on network analysis and comprehensive multi-source data effectively utilize big data and information technology, usually employing rigorous statistical and analytical methods like factor analysis, cluster analysis, structural equation models, enhancing the objectivity and accuracy of measurements. Yet, high data processing and analysis costs present a major challenge. Methods based on user perception prioritize subjective perceptions and emotional factors, aligning more closely with users' actual experiences, although their effectiveness is still influenced by individual differences and subjective elements.

Overall, current international research strives comprehensively and profoundly to understand and measure city images, playing a pivotal role in advancing research. However, challenges like complexity, subjectivity, and dynamism persist. The key directions for future work include precisely defining and measuring city characteristics, efficiently collecting and processing perception and emotional data, and selecting appropriate statistical methods. Given the dynamic and changeable nature of city images, future research might explore combining qualitative and quantitative methods, focusing on individual perceptions and emotions, and adopting long-term observations as new measurement tools and methods.

6. Conclusion

This paper, through reviewing relevant literature from 2013 to 2023 in SSCI, summarized the focal points and achievements of foreign research on city image communication. In the realm of city branding, foreign studies emphasize an international perspective and cross-cultural exploration,

offering rich dimensional insights into city brand shaping by utilizing multidisciplinary knowledge from fields like marketing and sociology. However, challenges persist in integrating complex global-local and business-culture relationships, necessitating future research to handle them sensitively and comprehensively. Concerning urban culture, foreign research aims to reveal the complexity and diversity of urban culture, promote community engagement, and underscore inclusivity. Yet, overlooking marginal cultures and excessive emphasis on cultural capital and economic value might lead to cultural alienation and commercialization, indicating potential research directions. Regarding the measurement of city images, foreign tools emphasize multidimensional analyses of city images from economic, cultural, social, and environmental perspectives, integrating advanced technologies like big data analysis and artificial intelligence to enhance analytical accuracy. However, complexities, expensive tools, cultural sensitivity issues, privacy, and ethical concerns pose challenges to measurements. Overall, foreign research on city images has constructed a comprehensive theoretical framework, emphasizing multidisciplinary perspectives and comprehensive research methods, offering diverse angles for domestic city image research. Yet, the balance between theoretical application and practical operation, cultural sensitivity, and ethics, among other aspects, remains inadequate, requiring further exploration and resolution in future research.

At the theoretical framework level, foreign city image research is characterized by a diverse theoretical perspective. This field spans theories from geography, sociology, psychology, marketing, and communication, among other disciplines, constructing a rich and complex theoretical system. This system not only involves the material spatial image of cities but also encompasses social-cultural images, holding profound theoretical value and practical significance. These theoretical frameworks reveal the complexity of city image research. For China, insights from city image research extend beyond aesthetic city design to include multiple dimensions of city influence, such as urban culture, social development, and economic strategies. This emphasizes the need to balance multiple dimensions while shaping a city image that is compatible with both material and cultural aspects.

At the research methodology level, city image studies between 2013 and 2023 in SSCI demonstrate a composite characteristic of diversity and depth. Firstly, these studies cover multiple levels from macro to micro, combining many novel computational methods based on quantitative methods (such as case studies, questionnaire surveys, and statistical analysis), including network analysis, computer vision, machine learning, natural language processing, and spatiotemporal analysis. Many studies comprehensively analyze urban planning, urban marketing, urban community development, using big data and artificial intelligence technologies to deeply understand city images. For example, by analyzing user comments, images, and geographical tags on social media platforms, researchers can obtain rich and real-time data about city images. Additionally, machine learning and artificial intelligence technologies are used to extract useful information and insights from vast amounts of data. Consequently, city images are a concept of continuous change and dynamic development, and an increasing number of studies are beginning to focus on its continuity and dynamism by using innovative research methods to understand and reveal the construction and influencing factors of city images.

Overall, foreign research on city image has built a complete theoretical framework, emphasizing multidisciplinary perspectives and comprehensive research methods, providing diverse perspectives for domestic city image research, such as focusing on public perceptions and evaluations of city image communication, integrating city image communication with geographical planning, comprehensive measurement of city image dimensions using social media data, satellite image data, and more.

Additionally, foreign studies on city image delve deeply into the generation, influencing factors, and mechanisms of change in city image. They hold substantial practical and guiding significance. The theoretical and applied value they offer provides insights and guidance for domestic research on

city image. In comparison, though both foreign and domestic research often use a specific city as a case study in city image research, they differ in focus. Foreign studies concentrate on how to measure and evaluate city image, aiming to provide scholars and practitioners with tools and methods for evaluating city image. Conversely, domestic research often explores the influence of specific brand events or cultural symbols on the shaping of a city image. It's noticeable that domestic research tends to adopt a more subjective and discursive approach, lacking the utilization of theoretical frameworks and research methods. In examining ten domestic research articles, only studies by Han Ruixia [39] and Pan Ji [40] demonstrate a certain level of scientific rigor and reliability. They employ methods such as theoretical regression and moderation analysis combined with framework theory and big data analysis. Their research stems from theories like cultural stereotypes, media competition, opinion markets, and framework theory, exhibiting higher credibility and scientificity in their results. However, the majority of scholars, such as Liu Bangkun, Liu Xingquan, Zhou Kai, and Liu Dan [41, 42], primarily focus on subjective discussions without applying theoretical perspectives and research methods. Consequently, their research conclusions, having a certain subjectivity and being discursive, necessitate further validation and data support for reliability and scientificity. Despite the gradual increase in domestic city image communication research in recent years, a majority of studies still lack theoretical perspectives and quantitative methods. It's undeniable that this article has certain limitations; it confines its analysis to research outcomes between 2013 and 2023. Future studies could widen the time scope to comprehensively reflect the landscape of city image communication research.

References

- [1] Li, X. (2008). *The image of Beijing*. Beijing: China International Broadcasting Press.
- [2] Xu, Y. (2021). *Landscape Design Research of Dalian BinHai Square based on City image Theory*. Master's Thesis, Jingdezhen Ceramic University, Jiangxi.
- [3] Ma, Y. (2015). *The Influence of Large-scale Events on the Construction of Urban Media Image: A Case Study of the 45th World Gymnastics Championships*. *Youth Journalists*, (11), 90-91.
- [4] Li, L., & Tian, W. (2017). *Identity Construction Strategy in City image Film Communication*. *Contemporary Communication*, (04), 39-41.
- [5] Li, M., & Chen, S. (2021). *Brand Narrative Consciousness in City image Promotion Films*. *Contemporary Communication*, (06), 97-99.
- [6] Liu, X., & Hu, Y. (2015). *Research on the New Path of Chengdu City image Communication in the New Media Era*. *Journal of Southwest University for Nationalities (Humanities and Social Sciences Edition)*, (05), 159-162.
- [7] Qin, Z., & Li, X. (2021). *Research on Symbolic Rhetoric of City image Shaping in Short Video: A Case Study of Typical Samples of Bilibili Website's Food-themed Short Videos*. *Modern Communication (Journal of Communication University of China)*, (04), 93-97.
- [8] Liu, H., & Xie, S. (2022). *Infiltration, Inclusion, Identification: Penetrative Communication of Urban International Image from the Perspective of Self-media*. *Contemporary Communication*, (06), 85-89.
- [9] Guo, J., & Guan, J. (2018). *Bibliometric Analysis of Geotechnical Engineering Research Based on Web of Science Database*. *Journal of Engineering Geology*, (05), 1397-1407.
- [10] Liu, L., & Liu, N. (2009). *Comparative Study of SSCI Papers in Mainland China, Taiwan, South Korea, and Japan Universities from 1978 to 2007*. *Research in Higher Education*, (12), 17-23+33.
- [11] Lynch, K. (1960). *The image of the city*. Cambridge: The MIT Press.
- [12] Huang, J., Obracht-Prondzynska, H., Kamrowska-Zaluska, D., Sun, Y., & Li, L. (2021). *The image of the city on social media: A comparative study using "Big Data" and "Small Data" methods in the Tri-City Region in Poland*. *Landscape and Urban Planning*, 206, 103977.
- [13] Zhang, Z., Luo, M., Luo, Z., & Niu, H. (2022). *The international city image of Beijing: A quantitative analysis based on Twitter texts from 2017–2021*. *Sustainability*, 14(17), 10675.
- [14] Hall, D. (1998). *City Profile: Budapest*. *Cities*, 15(2), 85-101.
- [15] Ci, C., & Choi, S. (2017). *How to manage a city's image using the brand concept map and network analysis: a case of Seoul*. *Quality & Quantity*, 51(6), 2441-2456.
- [16] Zhang, L., & Zhao, S. X. (2009). *City branding and the Olympic effect: A case study of Beijing*. *Cities*, 26(5), 245-254.
- [17] Hospers, G. J. (2003). *Imagining the new urban economy: An example of state-led branding in the Netherlands*.

- [18] Kotler, P., Haider, D. H., & Rein, I. (1993). *Marketing places: Attracting investment, industry, and tourism to cities, states, and nations*. New York: The Free Press.
- [19] Crompton, J. L. (1979). *An assessment of the image of Mexico as a vacation destination and the influence of geographical location upon that image*. *Journal of Travel Research*, 17(4), 18-23.
- [20] Appleyard D. (1970). *The image of the environment*.
- [21] Dinnie, K. (2007). *Competitive identity: The new brand management for nations, cities and regions*. *Journal of Brand Management*, 14(6), 474-475.
- [22] Zenker & Braun. (2019). *The current state of city branding research: Destinations, people, and politics*. *Journal of Travel Research*.
- [23] Hereźniak et al. (2020). *The role of social media in promoting city brands: A case of the city of Lodz*. *Journal of Destination Marketing & Management*.
- [24] Sevin, H. E. (2014). *Understanding cities through city brands: City branding as a social and semantic network*. *Cities*, 38, 47-56.
- [25] Taecharungroj, V., & Mathayomchan, B. (2020). *The big picture of cities: Analysing Flickr photos of 222 cities worldwide*. *Cities*, 102, 102741.
- [26] Ashworth, G. J. (2011). *Place branding: Glocal, virtual and physical identities, constructed, imagined and experienced*. *Tourism Management*, 32(3), 702-703.
- [27] Szubert, M., Warcholik, W., & Żemła, M. (2021). *The influence of elements of cultural heritage on the image of destinations, using four Polish cities as an example*. *Land*, 10(7), 671.
- [28] Peng, X., Bao, Y., & Huang, Z. (2020). *Perceiving Beijing's "City Image" Across Different Groups Based on Geotagged Social Media Data*. *IEEE Access*, 8, 93868-93881.
- [29] Echtner, C. M., & Ritchie, J. B. (1993). *Development of a multidimensional place image construct*.
- [30] Gilboa, S., Jaffe, E. D., Vianelli, D., Pastore, A., & Herstein, R. (2015). *A summated rating scale for measuring city image*. *Cities*, 44, 50-59.
- [31] Llodrà-Riera, I., Martínez-Ruiz, M. P., Jiménez-Zarco, A. I., & Izquierdo-Yusta, A. (2015). *A multidimensional analysis of the information sources construct and its relevance for destination image formation*. *Tourism Management*, 48, 319-328.
- [32] Potwarka, L. R., & Banyai, M. (2015). *Autonomous agents and destination image formation of an Olympic host city: The case of Sochi 2014*. *Journal of Hospitality Marketing & Management*, 25(2), 238-258.
- [33] Sobolevsky, S., Sitko, I., Tachet des Combes, R., Hawelka, B., Murillo Arias, J., & Ratti, C. (2016). *Cities through the prism of people's spending behavior*. *PLoS One*, 11(2), e0146291.
- [34] Pu, Y., Yang, H., Huang, X., & Liu, Z. (2019). *Computational Analysis of the Visual Perception of Public Spaces*.
- [35] Mohamad, M., Abdullah, A. R., & Mokhlis, S. (2012). *Tourists' evaluations of destination image and future behavioural intention: The case of Malaysia*. *Journal of Management and Sustainability*, 2(1), 181-189.
- [36] Langemeyer, J., Calcagni, F., & Baró, F. (2018). *Mapping the intangible: Using geolocated social media data to examine landscape aesthetics*. *Land Use Policy*, 77, 542-552.
- [37] Corti, A. (2018). *Exploring the emotional city: Using big data to test urban theories*.
- [38] Salesses, P., Schechtner, K., & Hidalgo, C. A. (2013). *Quantifying the Visual Connotations of Urban Streetscapes*.
- [39] Han Ruixia (2023). *The Media Influence Mechanism of Global Public Evaluation Differences in Urban International Image—Taking "Shanghai Culture" as an Example*. *Journal of Journalism College*, (03), 90-103+122-123.
- [40] Pan Ji (2018). *Local and Global: Chinese and English Media and the City image of Macao—A Perspective of Framework Theory*. *International Journalism*, (08), 156-165.
- [41] Liu Bangkun (2014). *Research on City image Communication Issues in the Beijing-Hangzhou Grand Canal Basin*. *Modern Communication (Journal of Communication University of China)*, (10), 17-21.
- [42] Liu Dan, Li Jie (2016). *Cultural Symbols and Spatial Values: City image Communication and Shaping in the Internet Era*. *Journal of Southwest University for Nationalities (Humanities and Social Sciences)*, (06), 154-158.