

The Impact of Cultural Integration Design of Sports Mascot IP Based on the Perspective of Emotional Identification on Urban Brand Attitudes—Take the Guangdong-Hong Kong-Macao National Games as an Example

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Abstract. In the context of cultural collaboration in the Guangdong-Hong Kong-Macao Greater Bay Area and the cross-border dissemination of large-scale event IPs, how the event mascots can stimulate audience emotional identification through cultural integration design and thereby influence the attitude towards the city brand has become an important theoretical and practical issue. The existing research lacks empirical verification of the mediating mechanism of "cultural integration design → emotional identification → city brand attitude". Therefore, this study takes the mascot of the 15th National Games, "Xiahangyang, Leirongrong", as the object, based on brand aesthetics theory, cultural three-level theory and emotional identification theory, to construct a relationship model. The results show that cultural integration design has a significant positive impact on the city brand attitude; emotional identification plays a partial mediating role in it. The research has revealed the intrinsic mechanism by which event mascots influence the attitude towards city brands, providing empirical support for the Guangdong-Hong Kong-Macao Greater Bay Area to leverage cultural ips to consolidate collective emotions and enhance brand recognition. It also offers practical references for the emotional design and long-term operation of cross-regional event mascots.

Keywords: Cultural Integration Design, Emotional Identification, Urban Brand Attitude, Sports Mascot, Guangdong-Hong Kong-Macao National Games

1. Introduction

Under the strategic backdrop of building a cultural power, a sports power, and the construction of the Guangdong-Hong Kong-Macao Greater Bay Area, regional cultural collaboration and the shaping of city brands have become the core issues for high-quality development. The mascot of the 15th National Games in 2025, "Xiahangyang and Leirongrong", is modeled after the Chinese white dolphin and integrates Lingnan culture and symbols from Hong Kong and Macao, achieving phenomenal cross-border dissemination and evoking widespread emotional resonance among the

public. However, through what mechanism does the mascot influence the public's brand attitude towards the Guangdong-Hong Kong-Macao Greater Bay Area?

In reality, most event IP "gain popularity quickly but also lose it quickly", making it difficult to be transformed into long-term brand assets. Although existing studies have verified the influence of IP image on brand attitude and the role of cultural identification in shaping city brands, there are few cases that introduce "cultural integration design" into the context of event mascots and test the mediating mechanism of emotional identification [1, 2]. Therefore, this study takes the mascot of the 15th National Games as the object, based on brand aesthetics theory, cultural three-level theory and emotional identification theory, constructs a relationship model of "cultural integration design → audience emotional identification → city brand attitude", and conducts empirical tests using the questionnaire survey method. This paper will explore how the cultural integration design of event mascots affects the city brand attitude, and deeply investigate the mediating role of audience emotional identification in this process, in order to promote the good development of city brands in the Guangdong-Hong Kong-Macao Greater Bay Area.

2. Research hypothesis

2.1. Cultural integration design and urban brand attitude

The attitude of a city brand refers to the relatively stable cognitive evaluation and emotional inclination formed by the public towards a city or a group of cities. The latest research indicates that a city brand is deeply rooted in the "mind and emotions" of the public, and its formation essentially involves the construction of an emotional connection between the public and the city [3]. Schivinski et al. confirmed that it influences the public's cognition and emotional participation through "brand coolness" [4]. This provides a theoretical reference for understanding how mascots influence the attitude of a city brand through cultural integration design - as mascots are the concrete carriers of a city brand, they are the micro-mirror of the city brand's attributes. Cultural integration design refers to the symbolization and integration of diverse regional cultural elements to form a visual image with recognition and emotional appeal. Yao Jie and Zhao Yue drew on Yang Yufu's three-level cultural theory and divided IP image design into the tangible level, the individual level, and the core level [1, 5]. In the design of the mascots "Xiahangyang, Leirongrong" for the Guangdong-Hong Kong-Macao Games, the tangible level integrates Lingnan architecture, marine life, and symbols from Hong Kong and Macao; the individual level endows them with a friendly and enthusiastic personality; and the core level conveys the cultural spirit of "same roots, diverse integration". This multi-dimensional integration may stimulate public emotional identification and thereby influence their attitude towards the brand of the Guangdong-Hong Kong-Macao Greater Bay Area. The brand aesthetics theory holds that a brand image with cultural depth and emotional tension can evoke the audience's aesthetic experience and emotional projection, enhancing the brand attitude [1]. The mascot builds the emotional bond between the public and the city through cultural narrative. Yu Ren confirmed that cultural identity has a significant positive impact on city brand assets ($\beta = 0.608$), and this is reflected through positive word-of-mouth and the willingness to revisit [6].

The following hypothesis is thus proposed:

H1: The cultural integration design of the event mascot has a significantly positive impact on the attitude towards the city brand.

2.2. The mediating role of audience emotional identification

Emotional identification refers to the sense of closeness, resonance, and belonging that the public feels towards an object. It is the psychological foundation for the establishment of brand relationships. Lam et al. conducted a study on Hong Kong youth and found that urban brand communication driven by cultural identification can stimulate emotional attachment and form positive brand responses [7]. Chand et al. conducted research and found that emotional attachment can transform service experiences into customers' willingness to engage in continuous behaviors [8]. This finding supports the universal role of emotional identification in the mediating pathway. Liang Jian'ai and Hu Tingting defined perceived identification as the degree to which consumers accept the brand culture and emotional value, and regarded it as a key variable connecting brand image and consumer attitude [9]. Yao Jie and Zhao Yue introduced "aesthetic experience" as an intermediary in the study of IP images and verified that IP images influence brand attitudes through emotional resonance [1]. In this study, emotional identification is manifested as the public's perceived identification and empathetic experience towards mascots. Mascots convey regional spirit and personality characteristics through cultural integration design, stimulate audience emotional projection and psychological identification, and thereby transfer positive emotions to urban brand attitudes.

The following hypothesis is thus proposed:

H2: Audience emotional identification plays a positive mediating role between cultural integration design and urban brand attitude.

3. Research design

3.1. Data selection

The research was conducted through anonymous questionnaire surveys. Various channels such as WeChat groups, friend circles, and Questionnaire Star were used to collect data. A total of 122 questionnaire samples were collected in this research. After excluding the questionnaires with incomplete responses or identical options, a total of 109 valid samples were collected, with an effective recovery rate of 89.3%.

3.2. Design of research questionnaire and scale

The independent variable "Cultural Integration Design" consists of 9 items, divided into three dimensions. The tangible aspect (3 items) measures whether the mascot's appearance, color scheme, and accessories have integrated the cultural elements of Lingnan and visual symbols from Hong Kong and Macau; the individual aspect (3 items) measures the mascot's personality traits and whether they conform to the public's perception of people in the Bay Area; the core aspect (3 items) measures whether the mascot conveys the spiritual essence of Lingnan culture and the cultural values of "sharing the same roots and origin". The dimension division is based on the three-dimensional framework of IP image proposed by Yao Jie and Zhao Yue, as well as the brand identity theory of Yang Xiaojun, and also draws on the cultural three-level theory of Yang Yufu [1, 5, 10].

The mediating variable "Audience Emotional Identification" consists of 6 items and is divided into two dimensions. The perceived identification (3 items) measures the public's sense of closeness to the mascot, cultural identification, and image representativeness; the empathetic experience (3 items) measures whether the public can sense the emotions and stories conveyed by the mascot,

whether they have an emotional resonance, and their willingness to actively share. The item design is based on the perceived identification scale by Liang Jian'ai and Hu Tingting and the aesthetic experience mediating measurement by Yao Jie and Zhao Yue [1, 9].

The dependent variable "urban brand attitude" consists of 6 items, divided into two dimensions. Cognitive evaluation (3 items) measures whether the mascots have enhanced the public's positive perception of the cultural charm and urban characteristics of the Guangdong-Hong Kong-Macao Greater Bay Area; Emotional preference (3 items) measures the public's liking, aspiration, and relative preference for the bay area. The item design is based on the brand attitude scale by Yao Jie and Zhao Yue [1].

All items are measured using the Likert five-point scale (1 = strongly disagree, 5 = strongly agree).

3.3. Model design

Based on the research hypotheses, this paper establishes a mechanism model for cultural integration design, which influences urban brand attitudes through the mediating and direct effects of audience emotional identification, as shown in Figure 1.

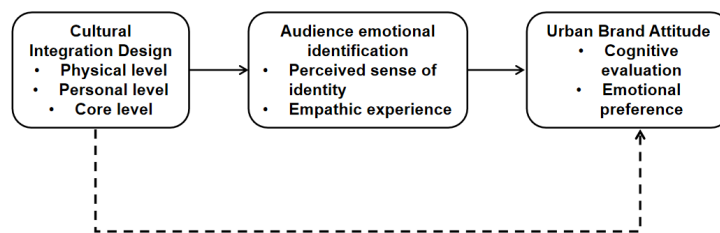


Figure 1. Model design (picture credit : original)

3.4. Reliability and validity analysis

This study used Cronbach's α coefficient to test the reliability of the scale. The results showed that the α coefficients of the three scales - cultural integration design, audience emotional identification, and urban brand attitude - were 0.930, 0.901, and 0.864 respectively. All of them were greater than the critical value of 0.7, indicating that the scales had good internal consistency reliability. In terms of validity, the KMO value was 0.925, and the Bartlett's spherical test reached a significant level ($p < 0.001$), indicating that the data were suitable for factor analysis. The factor loadings of each item were all greater than 0.5, indicating that the scale had good structural validity.

4. Empirical analysis

4.1. Baseline regression analysis

To verify the correlation between the independent variable and the dependent variable, this study first conducted data analysis using simple linear regression to test the correlation between cultural integration design and urban brand attitude. As shown in Table 1, with the total score of cultural integration design as the independent variable and urban brand attitude as the dependent variable, a simple linear regression was carried out. The results show that cultural integration design has a significant positive impact on urban brand attitude ($\beta = 0.746, p < 0.001, R^2 = 0.556$), indicating that

cultural integration design can explain 55.6% of the variation in urban brand attitude). Therefore, it is assumed that the viewpoint of H1 holds true.

Table 1. Regression analysis results

Independent variable	Dependent variable	Standardized coefficient β	t-value	Significance	R ²
Cultural integration design	City brand attitude	0.746	11.577	<0.001	0.556

4.2. Analysis of mediating role

The results of the mediation effect test are shown in Table 2. It indicates that the total effect of cultural integration design on urban brand attitude is significant ($\beta = 0.746, p < .001$). The positive impact of cultural integration design on emotional identification is also significant ($\beta = 0.761, p < .001$), and the positive impact of emotional identification on urban brand attitude is also significant ($\beta = 0.429, p < .001$). After adding emotional identification, the direct effect of cultural integration design on urban brand attitude decreased to 0.419 ($p < .001$), but it was still significant, indicating that emotional identification plays a partial mediating role between cultural integration design and urban brand attitude. The mediating effect value is 0.326, accounting for 43.7% of the total effect. Hypothesis H2 is supported.

Table 2. Results of mediation effect test

Path	Standardized Coefficient β	Significance	Conclusion
Cultural Integration \rightarrow Urban Attitude (Total Effect c)	0.746	< .001	Significant
Cultural Integration \rightarrow Emotional Identification (Path a)	0.761	< .001	Significant
Emotional Identification \rightarrow Urban Attitude (Path b)	0.429	< .001	Significant
Cultural Integration \rightarrow Urban Attitude (Direct Effect c')	0.419	< .001	Significant
Mediating Effect (a \times b)	0.326	-	Exists
Mediating Effect Proportion	43.7%	-	Partial Mediation

5. Suggestion

Firstly, in terms of cultural integration design, one should avoid the excessive accumulation of superficial symbols and deeply explore the elements of local culture that have emotional value. Specifically, one can start from three dimensions: the tangible level, the individual level, and the core level, to enhance the appeal and emotional resonance of the mascot's cultural expression, making it truly become an emotional bond connecting the public and the city.

Secondly, attention should be paid to the bridging role of emotional identification, and the communication path should be optimized. This study has found that emotional identification is the key mediating variable of cultural integration design in influencing the attitude of urban brand. Therefore, event promotion and city promotion can amplify the emotional resonance of the audience through story-based, scene-based content forms (such as short videos, interactive experiences), stimulate positive emotions such as love and pride, and thus more effectively enhance the city brand image.

Finally, to avoid the predicament of the event IP "gaining popularity quickly but fading away quickly", city managers should incorporate the mascot into the city brand strategy and carry out IP-

based, long-term operation. After the event, the popularity of the mascot can be continued through derivative product development, digital collectibles, and themed tourism routes, converting the short-term attention during the event into the long-term emotional assets of the city brand, and achieving the transformation from "event traffic" to "city retention".

6. Conclusion

The research results of this study indicate that cultural integration design has a significant positive impact on urban brand attitudes, and the audience's emotional identification plays a partial mediating role between the two. Thus, the research conclusion drawn is that the more prominent the cultural integration design of the event mascot is at the physical, individual, and core levels, the more it can directly enhance the audience's brand attitude towards the Guangdong-Hong Kong-Macao Greater Bay Area. At the same time, it can also indirectly have a positive impact by stimulating the audience's emotional identification.

This study provides valuable reference significance for future research in this direction. It mainly affects the application expansion of cultural integration theory in the field of sports event IPs, as well as the theoretical deepening of emotional identification as a mediating variable in the formation mechanism of urban brand attitudes. Future research should focus more on comparative analysis of different event types and regional cultures, longitudinal tracking or causal verification through experimental design, as well as new paths for emotional dissemination of sports event IPs in digital contexts for in-depth exploration.

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